







Facilitator Guide







Sector

Electronics

Sub-Sector

IT Hardware

Occupa on

A er Sales Support

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NSFQ Level: 4

CCTV
Installa on
Technician

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Shri Narendra Modi Prime Minister of India



Acknowledgement -

The need for having a standard curriculum for the Job Role based Qualifica on Packs under the Na onal Skills Qualifica on Framework was felt necessary for achieving a uniform skill-based training manual in the form of a Facilitator Guide.

I would like to take the opportunity to thank everyone who contributed in developing this Guide for the QP CCTV Installa on Technician.

The Guide is the result of reless pursuit to develop an e ec ve tool for impar ng the Skill Based training in the most e ec ve manner.

I would like to thank the team of Kontent Edge for their support to develop the content, the SME and the team at the ESSCI along with the industry partners for the reless e ort in bringing the Guide in the current format.

CEO

Electronics Sector Skills Council of India

About this Guide -

This Facilitator Guide is designed to enable training for the "CCTV Installa" on Technician" Qualifica on Pack (QP). Each Na onal Occupa onal (NOS) is covered across Unit/s. Key Learning Objec ves for the "CCTV Installa" on Technician" NOS mark the beginning of the Unit/s for that NOS. The symbols used in this book are described below.

Symbols Used







Facilita on Notes



Learning Outcomes









Team Ac vity





Explain







Ac vity



Summary





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Fundamentals of CCTV System

Unit 1.1 - Objec ve of the Module

Unit 1.2 - Basics of Electricity

Unit 1.3 - Basics of Electronics

Unit 1.4 - Cables and Connectors

Unit 1.5 - Basics of Networking

Unit 1.6 - Tools and Equipment





Key Learning Outcomes 💆



At the end of this module, you will be able to:

- Define electricity
- Iden fy the di erence between electrical and electronic devices
- Define the basic concepts related to electricity
- Iden fy the features of tes ng instruments
- Use various electronic components in a CCTV system
- Work with di erent cables and connectors in a CCTV system

UNIT 1.1: Objec ve of the Module

Unit Objec ves 6



At the end of this unit, you will be able to:

- Iden fy the di erence between electrical and electronic devices
- Define the basic concepts related to electricity
- Iden fy the features of the tes ng instruments
- Describe the working of dierent cables and connectors in a CCTV system



- Ini ate the session with the par cipants by discussing about the objec ves of the module.
- Make the session interac ve by asking the par cipants to share their expecta ons from the module on the blackboard/whiteboard.
- Introduce the topics to be covered and give some informa on about them.
- Give the par cipants a general idea about what will be covered in the module.

UNIT 1.2: Basics of Electricity

Unit Objec ves

At the end of this unit, students will be able to:

- Define electric charge, electric current and electric circuit
- Di eren ate between alterna ng current (AC) and direct current (DC)
- Define voltage and current
- Di eren ate between conductors and insulators
- Explain insulators and connectors
- Explain electric charge, electric current and electric circuit

Resources to be Used



· Objects such as a duster, pen, notebook and so on

Ask



- Ask the par cipants to tell what comes to their mind when they think of electricity.
- Ask them if they can tell some terms that we usually associate with electricity.



- · Tell the par cipants why it is important for them to know about electricity, a er the par cipants share what they think of electricity.
- Explain to them the various terms associated with electricity, such as current, voltage, power, energy; a er the par cipants come up with di erent terms.
- Explain how to calculate the rate of flow of current or the rate at which electric energy is transferred. Tell them that the flow of current can be seen in simple mechanisms used in our day-to-day life such as switching on a fan or a light bulb.
- Tell them that electricity is a natural force that comes into existence whenever there is a flow of electric charge between any two components. The flow of electric charge is called current. Voltage is the poten all di erence between a nega velly charged component and a component with posi ve charge.
- Explain that the electric power can be measured using electric meter. This way a customer comes to know how much power has been consumed.
- Explain how electric energy can be calculated. Also, tell them that wa age means electric power in was.

Explain [

• Explain Ohm's Law.

Do 🗸

Draw the following diagram on the whiteboard.

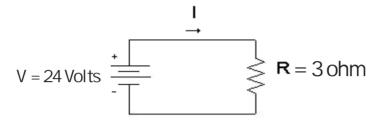


Fig 1.2.1: Representa on of Ohm's law

Notes for Facilita on



- Explain Ohm's law showing the diagram on the board.
- Explain to the par cipants, the Ohm's law. Then tell them about the linear rela on of current and voltage with the help of the following graph, where X axis represents current and Y axis represents voltage.

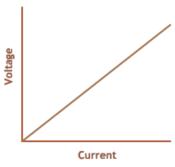


Fig 1.2.2: Linear rela on of current and voltage

• Tell them, if V is 24 volts, R is 3 ohms, then I can be calculated as V=IR; I=V/R; the current, I, flowing in the circuit will be 8A.

Ask



- Ask the par cipants if they have heard of the terms, AC and DC.
- Ask them if they know what these terms stand for.

Explain 🗓



- Explain to the par cipants about electric circuit, AC and DC.
- Tell them the di erence between AC and DC with the help of the following table:

Parameter	AC	DC
Direc on	It reverses its direc on while flowing in a circuit.	It flows in one direc on in the circuit.
Current	It is the current of magnitude varying with me	It is the current of constant magnitude.
Obtained from	A.C Generator and mains.	Cell or Ba ery.
Passive Parameters	Impedance	Resistance
Power Factor	Between O and 1	It is always 1
Types	Sinusoidal, Trapezoidal, Triangular, Square	Pure and pulsa ng

Fig 1.23: Di erence between AC and DC circuit

- In addi on, tell them in a direct current circuit, current flows in a single direct on and one pole is always nega ve and the other pole is always posi ve. In an alterna ng current circuit, the two poles alternate between nega ve and posi ve and the direc on of the current (electron flow) reverses periodically.
- Explain series and parallel circuit. Tell them the di erence between series and parallel circuit with the help of following table:

Series Circuit	Parallel Circuit
All components share the same current	Components have the same poten al di erence between them
There are no junc ons between components	A loop can be found between two components
If the circuit breaks at any point, current stops flowing through the circuit altogether	If one branch of the circuit breaks, all the other branches cans II function

Fig 1.24: Di erence between series and parallel circuit

- Explain electric signal.
- Briefly explain di erent types of power supplies.



- Explain that an electrical circuit is an interconnec on of the following:
 - o Power source, such as a ball ery which provides energy for the current to flow through the circuit.
 - o Load which is any device that draws power from the circuit, such as a light bulb, a TV, a computer and so on.
 - o Electronic components, such as resistors, capacitors and so on.
 - Wires that connect various components.
- Tell them that a circuit may be open or closed. There is a flow of current when the circuit is dosed.
- Explain that in a series circuit, the load, which is depicted by lamps, is connected to one a er another; and in a parallel circuit, both the lamps are connected to the source, parallel to each other.
- Tell them the formulae of calcula ng resistance in a series connec on and a parallel connec on with the help of the following table:

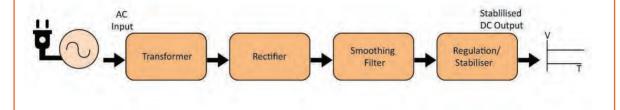
Type of Connec on	Formulae	Circuit Diagram
Series	R = R1 + R2 + R3	R1 R2 R3
		v T
Parallel	1/R = 1/R1 + 1/R2 +	
	1/R3	V 13 R1 R2

Fig 1.25: Formulae for calcula ng resistance

- Tell them that an electric signal provides informa on in the form of varied voltage or current.
- Briefly explain about di erent elements of the voltage me rela onship graph of an electrical signal such as:
 - o Amplitude
 - o Peak-peak voltage
 - o Time period
 - o Frequency
- Tell them about dierent types of power supplies and briefly explain these one by one.
- Also, tell them, in a linear regulator power supply:
 - o The transformer steps down high voltage AC mains to low voltage AC.
 - o The rec fier converts AC to DC, but the DC output varies.
 - o The smoothing filter smooths the DC from varying greatly and maintains the

varia on to a small ripple.

- o The regulator eliminates the ripple by se ng the DC output to a fixed voltage.
- Ac vity Handling Strategy:
 - o Ask one par cipant to write the answers on the board and tell others to say whether the answers are correct or not.
 - o The correct answers are:



UNIT 1.3: Basics of Electronics

Unit Objec ves 6

At the end of this unit, students will be able to:

- Iden fy the electronic components in a CCTV system
- Iden fy the func on of resistors
- Use resistor colour codes
- Define capacitance
- Iden fy the main types of capacitors

Resources to be Used



- Available objects such as a duster, pen, notebook and so on
- Electronic components such as a diode, capacitors, resistors, transistors and so on

Ask ask



Ask the par cipants if they can tell the di erence between electrical and electronic devices.

Explain



- Explain to the par cipants about electronic components.
- Explain the di erent types of electronic components.



- Start the session by telling the par cipants about the di erence between electronic and electrical devices.
- Tell them that the di erence lies in how the devices manipulate electricity to do their work. Electrical devices take the energy of the electric current and transform it in simple ways into some other form of energy; most likely light, heat, or mo on. For example:
 - o The hearing elements in a toaster turn electrical energy into heat that allows toasting of bread.
 - o The motor in a vacuum deaner turns electrical energy into mo on that drives a pump, which then sucks the dust out of the carpet.
- Tell that, electronic devices, instead of just conver ng electrical energy into heat, light, or mo on, are designed to manipulate the electrical current into doing interes ng and useful things. For example:
 - o Audio electronic devices add sound informa on to electric current, which then allows someone to listen to music or talk on a cell phone.
 - Video devices add images to electric current so that one can watch movies.

- Also, tell them that there is not a dear-cut demarca on between electric and electronic devices. Electrical devices o en include some electronic components in them and viceversa. For example,
 - o A toaster may contain an electronic thermostat that a empts to keep the heat at just the right temperature to make a perfect toast.
 - o The remote control of a TV set is a complicated li le electronic device that contains simple electrical devices such as ba eries.
- Tell the par cipants that electronics is a branch of science which deals with electrical circuits involving ac ve and passive electronic components.
- Tell them about the basic ac ve and passive components with the help of the following figure and show some of the components to them.

Ac ve Components Passive Components Transformer Resistor Integrated Circuit(IC) Light Emi ng Diode (LED) Power Sources Solenoid Passive Components Integrated Components Transformer Resistor Inductor Inductor Thermistor

Fig 1.3.1: Ac ve and passive components

- Then, explain to them about ac ve components using the following points:
 - o Those components which generate energy in the form of voltage or current are called as ac ve components.
 - o In very simple words, it can be said that ac ve components are energy donors.
 - o Brief them about each component along with its applica on with the help of the following table:

Components	Applica on
IC	 In an oscillator In an amplifier In a timer In a counter, a microprocessor or computer memory
Transistors	As an amplifierAs a switch
Power Sources	Provide energy (power) to the circuit
LED	 In avia on ligh ng In automo ve headlamps In general ligh ng In tra c signals In camera flashes In lighted wallpaper

Solenoid	Automo ve: In interlock devices
	Medical: In dialysis machines, dosing equipment and
	blood pressure monitoring devices.
	Railways: In locomo ves, rolling stock, tracks, signals
	and power distribu on
	Industrial: In locking, cu ng, damping, punching,
	posi oning, diver ng, holding or rota ng

Fig 1.3.2 Components and its applica ons

- Next, explain to the par cipants about passive components using the following points
 - Passive components are those components which do not require any power source to perform their specific functions.
 - o These components are not capable of controlling current.
 - o Brief them about each component along with its applica on with the help of the following table:

Components	Applica on
Transformer Resistor	 To increase (or step-up) voltage To decrease (or step-down) the supply voltage In radio demodula on In power conversion In over-voltage protec on In logic gates In waveform Clipper and Clamper
Kesisioi	In a low-noise amplifier or a pre-amplifierIn heavy-duty industrial high-current
Capacitor	 For energy storage In digital memory In pulsed power and weapons In power condi oning
Inductors	For energy storageIn analog circuits and signal processing

Fig 1.3.3: Passive components and its applica ons

- Tell the par cipants that thermistors are widely used as
 - o Inrush current limiter
 - o Temperature sensors that is Nega ve Temperature Coe cient (NTC) type, selfregula ng hea ng elements
 - o Posi ve Temperature Coe dent (PTC) type self-rese ng overcurrent protectors
- Explain forward and reverse voltage of a diode.
- Briefly explain the colour bands of a resistor.
- Tell them about the various units of resistance and capacitance.
- Also, tell them about splices, switches and couplers.

- Ac vity Handling Strategy:
 - o Ask the par cipants to tell the answers one by one.
 - o The answers are:

$$\begin{array}{ll} 1 \ k &= 1000 \\ 1 \ M &= 1000000 \\ 1000000 \ \mu F = 1F \\ 1000 \ nF = 1 \ \mu F \\ 1000 \ pF = 1 \ nF \end{array}$$

UNIT 1.4: Cables and Connectors

Unit Objec ves 6



At the end of this unit, students will be able to:

- Iden fy the di erent types of cables and connectors used in a Closed-circuit television (CCTV) system
- Define cable, flex, lead and wire

Resources to be Used



- Available objects such as a duster, pen, notebook and so on
- Coaxial cables, paired cables, ribbon cables, portable cords and other cables, whichever are available
- RCA and BNC connectors

Demonstrate 🛱



Show the par cipants the di erent types of cables.

Notes for Facilita on



- Define cable as an assembly of electrical conductors/wires insulated from each other but laid up together (by being twisted around a central core).
- In addi on, tell the par cipants that a cable is o en misunderstood with a wire. Explain to them the dierence between a wire and a cable with the help of the following table:

Parameter	Wire	Cable
Defini on	Is a thin, flexible thread of metal	Is an assembly of electrical conductors/wires
Uses	Used to bear mechanical loads or electricity and telecommunica on signals	Used for:Power transmissionConnecting two or more devicesCarrying electric currents
Types	Solid wire and stranded wire	Twisted pair cable, coaxial cable, mul conductor cable, fibre op c cable and so on

Fig 1.4.1: Di erence between wire and cable

In addi on, tell them that a flex is a flexible cable fi ed to the mains electrical appliances and a lead is a complete assembly of cables and connectors.

Tell them the basic dassifica on of cables with the help of the following images:



Fig 1.4.2: Classifica on of cables

- Briefly explain various cables used in CCTV installa on and show them the available
- In addi on, tell them:
 - o A single cable is a thin strand that is simply known as a wire.
 - o Communica on cables are copper conductors. Copper wire is used in telecommunica ons, electronics circuitry, power genera on, power transmission, power distribu on and so on. Coaxial cables, mul core cables and twisted pair cables are used as communica on cables.
 - o Flexible cables, also known as con nuous-flex cables, are specifically designed to cope with the bending of cables and the physical stress on cables inside cable carriers. It is used in automa on.
 - o In a shielded cable, there are one or more insulated conductors that are enclosed by a common conduc ve layer. The shield may contain braided strands of copper or aluminium, a non-braided copper tape that is wound spirally or it may contain a layer of conduc ng polymers.
 - o Twisted pair cables may be shielded or unshielded.

Demonstrate |



Show them di erent types of connectors.



- Tell them that connectors provide interfaces for linking devices by using cables.
- Also, tell that connectors either have a male end with pinss cking out from it or a female part, also known as a socket, with holes for accommoda ng the pins.
- In addi on, tell them that a pin layout describes which pins couple with which wires. Generally, each numbered pin corresponds to a wire within the cable.

- Show them a pin layout as given in the following image and tell them about the various ports and connectors:
 - o Serial port: for DB9 connector, to connect older devices
 - o Parallel port: for DB25 connector, to connect old printers
 - o USB ports: to connect peripherals
 - o RJ45 connector: for Ethernet cable
 - o VGA connector: used for connec ng a monitor
 - o Line-In, Line-Out and microphone jacks: for connec ng

Speakers

Sound system

Microphone

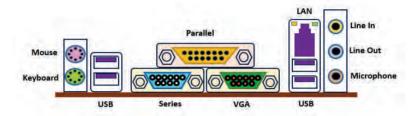


Fig 1.4.3: Pin layout for pin connec ons

- · Tell them that:
 - o An RCA connector: is used to carry audio and video signals
 - o A BNC connector is:

Used with a coaxial cable in a radio-frequency electronic equipment, such as a radio and a television, in test instruments and in video signals.

Used on commercial video devices for composite video.

Also found in recording studios.

- o D connector: is used for communica on ports, network ports and game controller ports.
- o F connector: are suitable for cables and satellite TV installa ons where there is a requirement for delivery of high frequency informa on.
- Briefly explain about terminal blocks and PCB terminals.
- Ac vity Handling Strategy:
 - o Ask the par cipants to solve the gues on and give them two minutes.
 - o A er the me is over, ask one of them to tell the first three answers and then ask the other ones to tell the remaining answers.
 - o Ask others to match their answers.

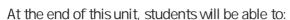
Type of cables	Image
Ribbon cables	Translation of the last of the

Twin-lead cables	
	Kanali a
Twisted-pair cables	
Paired cables	-
Portable cord	
Direct-buried cable (DBC)	
Mul core/Mul conductor cable	Lake .

Fig 1.4.4: Di erence between wire and cable

UNIT 1.5: Basics of Networking

Unit Objec ves 6



- Define network and its topologies
- Iden fy the types of networks
- Use the di erent layouts of networks
- Iden fy the various network devices
- Define TCP/IP and IP addressing

Resources to be Used



Available objects such as a duster, pen, notebook and so on.



- Start the session by asking the par cipants if they know about LAN (Local Area Network), MAN (Metropolitan Area Network) and WAN (Wide Area Network).
- Ask them if they can tell the dierent types of network topologies.
- Enquire if they know anything about TCP/IP. If yes, then ask them to name its layers.

Demonstrate



- Show a network interface card
- Show the various network devices



- Tell the par cipants the full form of TCP/IP Transmission Control Protocol/Internet Protocol.
- Also tell them that a network is an interconnec on of a group of computers that can communicate and share resources such as hard disks and printers and are connected by some type of transmission media.
- Tell them about some advantages of a network such as:
 - o Sharing of informa on across the network
 - o Op mum u liza on of hardware resources
 - o Centraliza on of data management and peripherals
- Tell them the components of a network are:
 - Shared Devices
 - o Network Communica on Technology (NCT)
 - o Network Opera ng System (NOS)
 - Network Devices

- Explain to them about the concept of server and client computers and tell them about the di erent types of servers such as file, print, communica on and mail server.
- Inform the par cipants that network communica on technology deals with the technology aspect of networking communica on.
- In addi on, also tell them that communica on is the process of sharing informa on and ideas through speech, symbols, signals or signs.
- Briefly introduce Network Interface Card to them.
- Tell them about network communica on technology such as Internet, Intranet and Extranet.
- Further tell them that communica on technology also deals with the mode of transmission of data. Mode refers to the direc on of data flow over the network. There are three types of modes:
 - o Simplex: It is a type of connec on in which the flow of data is unidirec onal, that is the data flows in only one direc on.
 - o Half-duplex: It is a type of connec on in which the flow of data is in one direc on or the other, but it cannot be both at the same me.
 - o Full-duplex: It is a type of connec on in which the flow of data is bidirec onal. Each end of the line can thus transmit and receive at the same me. This means that the bandwidth is divided into two for each direc on of the data transmission, if the same transmission medium is used for both the direc ons of the transmission.
- Further, tell them that there are other types of modes of transmission, such as synchronous and asynchronous communica on mode, parallel and series mode and so on.
- Explain to them about Network Opera ng System (NOS) with the help of the following points:
 - o It runs on a server and provides the server the capability to manage data, users, groups, security, applica ons and other networking func ons.
 - o The primary purpose of the NOS is to allow shared file and printer access among mul ple computers in a network; for example, it allows sharing through a LAN and also through a private network to other networks.
 - Examples of network opera ng systems are Microso Windows Server 2003,
 Microso Windows Server 2008, UNIX, Linux, Mac OS X, Novell NetWare and BSD.

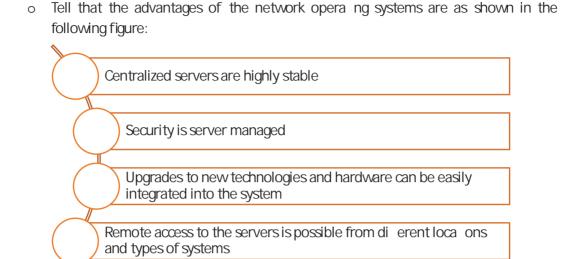


Fig 1.5.1: Advantages of network opera ng system

o In addi on, tell them that the disadvantages of the network opera ng systems are as follows:

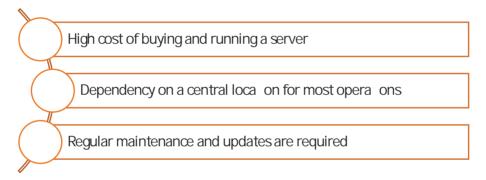


Fig 1.5.2: Disadvantages of network opera ng system

- Inform them that network architecture is a structural model that specifies the type, layout and components of a network along with the data format, dierent protocols and services provided.
- Explain to them about the two types of network architectures with the help of the following points:
 - Peer-to-Peer: In a peer-to-peer network, there is no specific dis not on between a
 dient and a server. Every computer can communicate directly with every other
 computer. By default, no computer has more authority than another.
 - o Client-Server: In a client-server network, the requests are processed centrally by one or more servers. The server is a system with a high processing power, which provides services for the other computers in a network. The client is a system that accesses resources available on a server. In a client / server network setup, the server is responsible for processing the requests sent by the clients.
- Inform them about the various networking devices.
- Explain the concept of network topologies.

- Inform them that the three types of networks are:
 - o LAN
 - o WAN
 - o MAN
- Tell them about each type of network with the help of the following figure:



Fig 1.5.3: Type of networks

- Briefly explain Ethernet technologies.
- Inform them about wireless networks and WLAN standards.
- Tell them that a CCTV can be connected through a wired connect on. It can also be connected via a wireless connect on and can be operated remotely.
- Next, tell them that TCP/IP was developed by the department of Defence's Project Research Agency (ARPA, later DARPA) as a part of a research projec t studying about network interconnec on required to connect remote machines.
- Briefly explain the di erent layers of TCP/IP model.
- Tell them that an IP address is a unique iden fier for a computer or any other device a ached to the network. It is a 32-bit value. IP addresses are wri en in four decimal numbers which are separated by dots.
- Tell them about the classes used in IPV4 addressing.
- Ac vity handling strategy:
 - o Ask the par cipants one by one the name of the topologies.
 - o Tell the par cipants to draw the topology on the board and write its name.
 - o Answer:

Bus

Mesh

Star

Tree

Cellular

UNIT 1.6: Tools and Equipment

Unit Objec ves 6

At the end of this unit, the par cipants will be able to:

- Define a mul meter
- Di eren ate between analog and digital mul meters
- Use a mul meter
- Maintain a mul meter
- Iden fy analog scales

Resources to be Used



Available objects such as a duster, pen, notebook and so on.



- Ask the par cipants to name some tools they can remember.
- Ask them to name the equipment that is used to measure current, voltage and resistance across the conductors.

Notes for Facilita on



- Write the name of the tools men oned by the par cipants on the board.
- Show them the dierent types of tools and equipment.
- Explain to them about the usage of each tool and equipment.
- Tell them about some addi onal tools used for CCTV installa ons such as:
 - o Hammer, which Hammer may be needed for dipping cables to the walls and ceilings.



Fig 1.6.1: Hammer

Nose Plier, which is used for holding smaller objects/wires.



Fig 1.6.2: Nose plier

o Drill machine and drill bits, which are used to make holes in walls.



Fig 1.6.3: Drill machine

o Measuring tape, which is used for measuring distances while moun ng cameras and thus helps in accurate installa ons.



Fig 1.6.4: Measuring tape

- Tell them about the two types of mul meter:
 - o Analog
 - o Digital
- Explain how to use a mul meter to measure voltage, current and resistance.
- Tell them that they should keep in mind the type of current they are measuring, whether it is AC or DC.
- Tell them how to measure electrical power and energy.
- Ac vity Handling Strategy:
 - o Randomly ask the par cipants one by one to answer the ques ons.
 - o Answers:
 - 1. Current
 - 2 Ampere
 - 3. Resistance
 - 4. Ohm
 - 5. Mul meter









2. Electronic Surveillance

Unit 2.1 - Objec ve of the Module

Unit 2.2 - Introduc on to Electronic Surveillance

Unit 2.3 – Introducing CCTV

Unit 2.4 - CCTV Technology





Key Learning Outcomes 💆

At the end of this module, you will be able to:

- Define electronic security system
- List the types of electronic surveillance
- Recognize the roles of a CCTV installer
- Explain CCTV surveillance system
- List the applica ons of CCTV surveillance
- Explain components of CCTV system
- List di erent types of camera
- Explain di erent CCTV technology
- · Describe remote control surveillance

UNIT 2.1: Objec ve of the Module

Unit Objec ves 6



At the end of this unit, you will be able to:

- List the types of electronic surveillances and recognize the roles of a CCTV installer
- Explain CCTV surveillance system in detail, along with its components
- Describe about applica ons of a CCTV surveillance and di erent types of camera
- Understand di erent CCTV technologies and remote-control surveillance s



- Ini ate the session with the par cipants by discussing about the objec ves of the module.
- Make the session interac ve by asking the par cipants to share their expecta ons from the module on the blackboard/whiteboard.
- Introduce the topics to be covered and give some informa on about them.
- Give the par cipants a general idea about what will be covered in the module.

UNIT 2.2: Introduc on to Electronic Surveillance

Unit Objec ves

At the end of this unit, students will be able to:

- Define electronic security system
- List the types of electronic surveillances
- Recognize the roles of a CCTV installer

Resources to be Used



Available objects such as a duster, pen, notebook and so on

- Revise the learning of the previous sessions.
- Ask the par cipants if they have any doubts.



- Ask the par cipants what they know about an electronic security system.
- Ask the par cipants if they can cite examples where they may have seen an electronic security system.
- Ask the par cipants if they can list the types of electronic surveillance.

Explain 🕎



- Explain to the par cipants about an electronic security system.
- Explain electronic surveillance.
- Explain how PV modules are rated.



- Introduce electronic security system a er the par cipants share their views.
- Explain the par cipants how electronic security relates to an innova on whose usage can be witnessed in small stores or buildings and in homes.
- Explain the par cipants that it is on the basis of its func onality and technology usage, and necessary condi ons, a security system can be further classified.
- A security system can be categorized into three sec ons based on its electronic func oning as:
 - o Access Control/A endance System
 - o Fire Detec on/Alarming System
 - o CCTV Surveillance Security System

- Tell them that an electronic security system provides the facilies such as:
 - o Surveillance
 - o Access control
 - o Alarm
 - Intrusion control of an area
- Tell them about the types and purposes of an electronic security system.
- Explain the par cipants in brief about CCTV Surveillance Systems as the process of keeping a virtual eye over an area that may be:
 - o Under suspicion
 - Need to be secured
- Tell them that cameras are a main part of the surveillance electronic security system that act as eyes to it.
- Also, give the par cipants an insight as to how the system consists of various equipment that helps in viewing and saving the recorded surveillance data.
- Briefly explain an example of a crime preven on security equipment.
- Inform them that electronic surveillance can be carried on via a:
 - o Computer
 - o Telephone
 - o Camera
 - o Biometric System
- In addi on, tell them that surveillance via computer is is required to regulate ac vi es such as:
 - o Visi ng certain types of web sites
 - o Targe ng certain words or phrases
 - o Communica ng through online chat with suspicious individuals or groups
 - o Communica ng via emails
- Also, inform them that specific so ware needs to be installed on computers to carry on surveillance physically or remotely. Accessing the informa on stored in a computer allows the government to obtain the stored informa on and search history, live chats emails, file transfers and so on.
- Tell them that surveillance through a telephone allows the iden fica on of the loca on of a mobile phone and helps in tracking the person carrying it. It is done by calculating the di erences in me for a signal to travel from the cell phone to the cell towers near the loca on of the phone.
- Inform them that cameras are simple and inexpensive gadgets to be used for everyday surveillance.
- Inform the par cipants about their role as a CCTV installa on technician.
- Ac vity Handling Strategy:
 - o Choose five par cipants randomly and ask each one of them to tell one type of electronic surveillance.
 - o Types of surveillances are:

Computers

Telephones

Cameras Biometric Systems Social network analysis

UNIT 2.3: Introducing CCTV

Unit Objec ves 6

At the end of this unit, students will be able to:

- Explain CCTV surveillance system
- List the applica ons of CCTV surveillance
- Explain components of CCTV system
- List di erent types of camera

Resources to be Used



Available objects such as a duster, pen, notebook and so on

Do



Revise the learning of the previous sessions and ask them if they have any doubts.

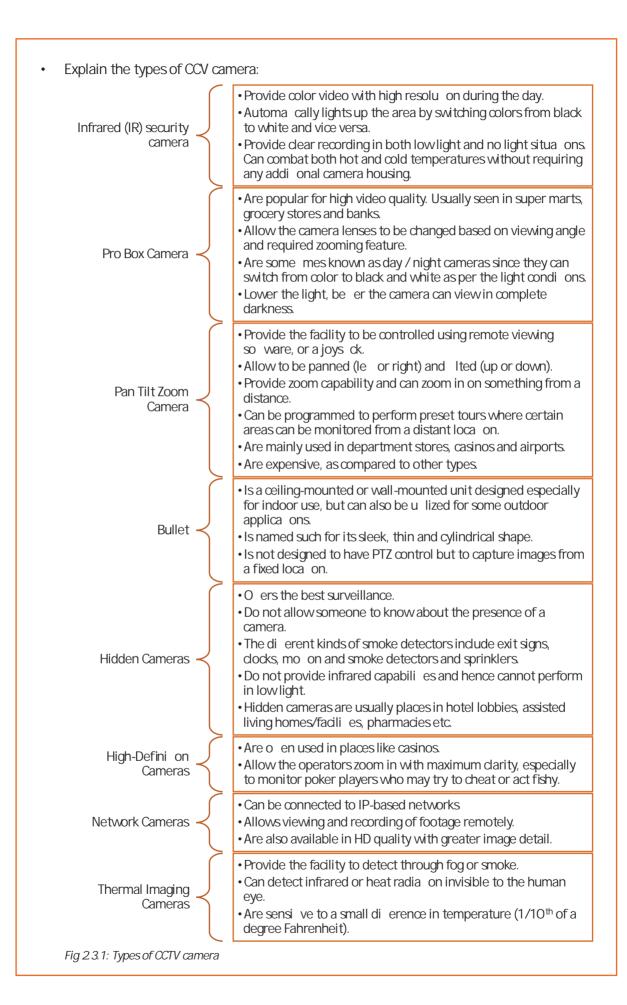


- Ask the par cipants about the applica ons of a CCTV system.
- Ask them whether they can tell about the components of a CCTV system.
- Ask them about applica ons of a CCTV surveillance.
- Ask the par cipants if they know about di erent types of CCTV camera.

Explain 🕎



- Explain the par cipants in brief about CCTV Surveillance Systems as the process of keeping a virtual eye over an area that may be:
 - o Under suspicion
 - o Need to be secured
- Explain that cameras are a main part of the surveillance electronic security system that act as eyes to it.
- Explain as to how the system consists of various equipment that helps in viewing and saving the recorded surveillance data.
- Explain the components of a CCTV system one by one.
- Explain the features of a camera.





- Give the par cipants a brief overview of what all will be covered in the program.
- Start the discussion by inving the participants to participants.
- Introduce TV system to the par cipants and tell them about the open and dosed-circuit TV system.
- Draw the given di erences between open circuit television (OCTV) system and closedcircuit television (CCTV) system:

OCTV		CCTV	
•	Open circuit means wireless	•	Closed circuit means the video
	transmission.		signal goes through a wire.
•	Open circuit being wireless is	•	Closed circuit is more reliable and
	easier to install.		secure.

Fig 2.3.2 Di erence between OCTV and CCTV

- Briefly explain CCTV system.
- Tell them that CCTV System is the use of video cameras to transmit a signal to a specific, limited set of monitors.
- Tell them how it diers from broadcast television in that the signal is not openly transmi ed, though it may employ point to point wireless links.
- CCTV is o en used for surveillance in areas which need security, such as banks, casinos, and airports or military installa ons.
- CCTV includes one or more cameras which are used to send video images and audio data to a monitor.
- Explain that these camera systems use cameras to transmit the signals to a main hub which then records that data for later viewing or live viewing if a full- me security personnel is at the premises.
- Tell them that CCTV system can be used to:
 - o Maintain security in medium and highly secured areas and installa ons.
 - o Observe behaviour of confined and poten ally serious pa ents in medical facili es.
 - o Monitor tra c.
 - o Oversee loca ons that may come out as hazardous.
 - o Maintain building security.
 - o Obtain a visual evidence of the ac vi es where it is necessary to ensure proper security and access controls such as in banks, airports or in a diamond cung opera on.
- Tell them about the applica ons of the CCTV systems a er the par cipants men on some of them.
- In addi on, tell them CCTV system may be used in a hotel to allow.
 - o The waiters to monitor the ming for the delivery of the next course in a restaurant.
 - o The skiers at ski resorts to check the conges on.

- Inform them that CCTV system can also be used for:
 - o video conferencing
 - o sale presenta ons
 - o distance learning
- Tell them basic opera ons on a CCTV system are as follows:



Fig 2.3.3: Basic opera on of CCTV system

For these the components of a CCTV surveillance system include:

- o Camera
- o Monitor
- o Recorder
- o Switcher and Mul plexer
- o Cables
- Tell them that the footage of CCTV camera is displayed on the monitor.
- In addi on, tell them that monitors can be:

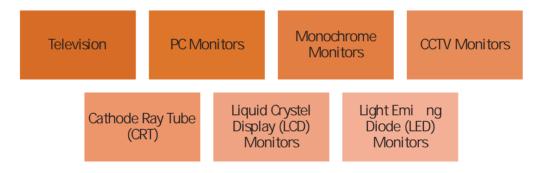


Fig 2 3.4: Type of monitor

- Briefly explain about the dierent types of cameras used in a CCTV system.
- Also, tell the advantages and disadvantages of wired and wireless CCTV cameras.

The advantages are as follows: The presence of CCTV camera system for **Deters Crime** surveillance will reduce pe y the s and vandalism in shops, malls and other public places. • The images and videos captured by a CCTV camera Helps Maintain system are o en recorded and stored into a Records database. Par cularly helpful in o ces. CCTV camera system helps to iden fy such **Protects Employees** instances and act immediately. • It is also helpful to keep a tab on the ac vi es of the employees. • In legal cases of the s and other forms of crime, For Evidence in videos and images provided by the CCTV camera Lawsuits system can serve as a valid proof and evidence against the defaulter.

Fig 2.3.5: Advantages of wireless CCTV system

The disadvantages are as follows:

Do Not Work Always

- CCTV camera system cannot monitor every area of your o ce or home at all mes
- Hence it cannot be considered as a foolproof method for crime preven on.

Privacy Concerns

- Invasion of privacy is the major issue when it comes to any security system device like the CCTV camera system.
- It lowers the employee morale and hampers produc vity at mes.
- Constant monitoring of every ac vity might put the workers ill at ease.

Ini al Costs:

- The ini al costs incurred per camera are high.
- The installa on may also increase the ini al expenditure.
- It depends upon the complexity of the CCTV camera system as well.

Fig 2.3.6: Disadvantages of wireless CCTV system

 Tell them that the size of fixed cameras varies, and these can be mounted in a wide range of loca ons such as on poles, inside cabinets, on fence lines, inside control panels, on roofs and so on.

- Inform them that dome camera is mostly used in the CCTV systems.
- Explain to them various features of a CCTV camera such as:

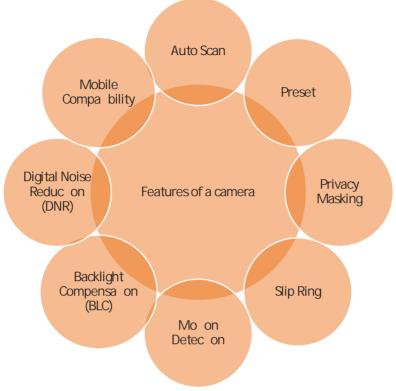


Fig 2.3.7: Features of CCTV system

- In addi on, inform them that a camera can be pre-set in such a way that during an intrusion alarm, it can:
 - o Focus on the access point at the loca on of triggering the alarm
 - o Display the high-value assets in the surveillance area
- Tell them that PTZ cameras let to monitor a parking lot adjacent to an apartment building with the feature of masking the images of the building windows.
- Also, tell that BLC allows the operator to see the details of a person moving in front of a brightly lit window.

Ask



- Ask them whether they know about the sub-components of a camera.
- Ask them if they know what a lens is.
- Ask them if they have any idea about sensors used in cameras.
- · Ask them about focal length, aperture and iris.
- Ask them about Digital Video Recorders (DVR).

Explain



- Explain sec on according to the topic now lens, sensors, camera housing and so on.
- Explain the features of a camera.



- Explain lens as an important component of the camera.
- Explain the three di erent types of camera lenses with the help of the following figure:

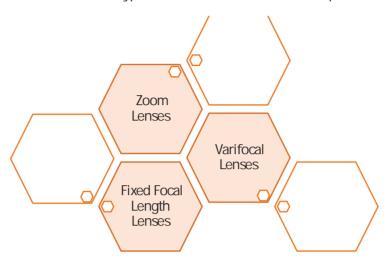


Fig 2 3.8: Type of camera lenses

- The lens on a CCTV camera is the first element in the imaging chain, which consists of the lens, camera, transmission system, image management and analysis so ware, and monitor.
- Systems that require superior quality images have lenses which are engineered to produce a high-quality image for the imaging sensor. While selec ng a lens consider the following points:
 - o Distance required to clearly focus on object
 - o Field of vision
 - o Size of the camera's imaging sensor
 - o Lightning condi ons.
- Lenses are iden fied by their focal length (in millimeters), largest aperture (in f number), and size of the image sensor for which the lens is designed. Explain to the par cipants about focal length, aperture and iris.
- Explain in detail about the two image sensors that are used in the CCTV cameras:
 - o Charge-coupled device (CCD)
 - o Complementary metal oxide semiconductor (CMOS)
- Explain the par cipants how a DVR receives the footage captured by the camera, archives
 the footage as recording to be reviewed later and shows the recording on a monitor to be
 viewed by the user.
- Explain that switchers and mul plexers enable the system to route the video signal to the output devices in the CCTV systems having number of cameras more than monitors and recorders.

• Talk about the dierent types of camera housing structures.

Dome Enclosures

Sealed Housing

Bullet Resistant Housing

Tamper Resistant Housing

Impact Resistant Housing

Fig 2.3.9. Type of camera

· Emphasise on the features of camera housing.

Sun shields can be used to protect the housing from direct sunlight as it may a ect the life of the camera adversely. They help to reduce the heat on the camera and lens.

Wipers may be used to keep the housing's op cal window clean.

Heaters and ven lators can be used to face the problem of fogging, moisture, and icing due to temperature di erences in between interior and exterior part of the camera housing.

Fig 2.3.10. Features of camera housing

• Tell the par cipants about common types of camera mounts.

• Briefly tell about di erent types of camera mounts:

Wall Mount Bracket

- · Ideal for moun ng computer monitors to the wall.
- Able to It side to side to adjust the monitor's angle of view.

Dome Security Camera Bracket

· Allows you to wall mount non-3-axis domes to a wall instead of ceiling

Pole Mount Security Camera Bracket

- Enables pole moun ng for security cameras.
- Enables pole moun ng for security camera housings.

PTZ Camera pole bracket

• Enables pole moun ng for PTZ-H101 camera housing

Celing Mount Bracket

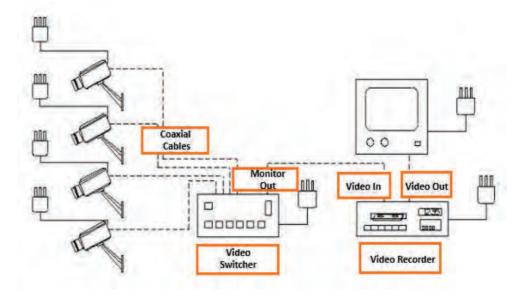
Suitable for LCD monitors from 15" - 23"

Pole Mount Security Camera Bracket

- Enables pole moun ng for security cameras
- Enables pole moun ng for security camera housings

Fig 2.3.11: Types of camera mounts

· Ac vity handling strategy: Iden fica on Game



UNIT 2.4: CCTV Technologies

Unit Objec ves



At the end of this unit, students will be able to:

- Explain di erent CCTV technologies
- Describe remote control surveillance



- Enquire from the par cipants if they have ever seen a Video Casse e Recorder (VCR) and a Digital Video Recorder (DVR).
- Ask them if they know anything about CCTV surveillance technology.
- Enquire from them if they know about video compression formats. If they say yes, ask them to name a few of them.
- Ask them why is data compression necessary?



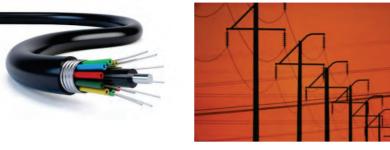
- Give the par cipants a brief overview of the evolu on of the video surveillance technology.
- Then, explain to them about the evolu on of the video surveillance recording system. In addi on, tell them about some advantages of the DVR and Network Video Recorder (NVR) systems with the help of the following points:
 - o These systems are appropriate for handling various cameras from a prime loca on.
 - o They have the capacity to store larger volume of video files and for a longer dura on in comparison with a camera.
 - o The videos can be reviewed and analyzed through a single interface, rather than having to access them exclusively from each camera.

Tell them that there are various CCTV surveillance technologies available in the market. Then briefly explain to them about the components of each technology with the help of the points given in the following figure: · It consists of: • A camera: mainly night vision technology based. Analogue CCTV • A monitor: either a dedicated or a call up monitor. Technology Cables: coaxial cables • DVR • It consists of: • An IP camera IP Based CCTV A monitor Technology • Cables: Power over Ethernet (PoE) • NVR An image sensor · It consists of: HD-SDI cameras High Defini on Serial Digital Interface (HD- A monitor SDI) Technology · Cables: coaxial and twisted pair cables • DVR • It consists of: High Defini on HDCVI cameras Composite Video A monitor Interface (HD-CVI) Coaxial cables Technology • DVR • It consists of: High Defini on TVI cameras Transport Video A monitor Interface (HD-TVI) • Cables: coaxial and UTP cable such as CAT-5 Technology • DVR

Fig 2.4.1: Type of CCTV technology

- Then, brief them about the advantages and disadvantages of each technology.
- Further, explain to them about remote-controlled surveillance. First tell them about the
 need for controlling the CCTV system remotely. It is controlled remotely when the
 distance between the camera and the security room is large (generally over 3 kilometers
 or 1.9 miles) and if cable installa on is not possible. Then, explain to them about the block
 diagram of remote-controlled surveillance.

• In addi on, also tell them about the di erent video transmission ways, which are laser, near-infrared light, spread spectrum, mobile, and telephone line and fiber op c cable.



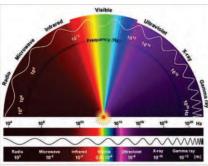




Fig 2.4.2: Type of video transmission ways

- Lastly, tell them about the a few video compression formats.
- Tell the par cipants that without a compression format, the volumes of data produced by digi sing CCTV image streams would swamp the available storage and communica ons systems.
- Tell the participants about the four commonly used compression formats



Fig 2.4.3: Compression formats

- Ac vity Handling Strategy:
 - o Randomly choose par cipants to answer the given ques ons.
 - o Then give the solu ons and ask the par cipants to check if they had given the right answers.
 - o Advantages of Analogue CCTV Technology:

Stable and well-established robust technology that is widely supported.

Easy to install, operate and maintain.

Cost e ec ve

No compa bility issues among CCTV components

No loss of frames

Provides be er performance in a low light situa on than other megapixel cameras with CMOS

o Advantages of HD Analogue CCTV Technology:

Similar to analogue CCTV technology with the excep on that all cameras are connected to the associated DVR directly

Transmits video, audio and serial data simultaneously instead of only video

Electromagne cinterferences are common while signals are transmi ed

No compression, latency and delay

HD quality video is delivered

Low maintenance cost

Open standard compliance assures compa bility among the devices which are run on the same technology made by di erent manufacturers

o Disadvantages of IP Network Technology:

Poorer performance in low light condi ons than the analogue counterparts

More fragile than analogue ones. If the network fails, no live video can be
monitored or recorded

Delay in receiving the video signal because of network tra c

If not designed properly, the system can su er mis sing frames, delays and latency.

Compa bility limita ons among the components and so ware

Fast and robust infrastructure required for a larger system.

More storage space required for them than for analogue ones

o Disadvantages of HD-SDI Technology:

Though cheaper than IP CCTV systems, the equipment cost is s $\,$ II high

It has the limita on that there is a maximum of 100m cable running between the camera and DVR $\,$

Electromagne c interference and noise is commonly present in the transmission of video signals.

The storage capacity required for them is more than that for an analogue CCTV There is not as much in the way of tools, applica ons and support available in the market as there is for IP or analogue CCTV systems











3. Designing of the CCTV System

Unit 3.1 - Objec ve of the Module

Unit 3.2 - Pre-installa on Ac vi es

Unit 3.3 - Customer Requirements and Site Analysis

Unit 3.4 - Selec on of Components





Key Learning Outcomes 👸

At the end of this module, you will be able to:

- List the pre-installa on ac vi es
- Iden fy the factors to be considered for the designing process
- Analyse the customers' needs and requirements
- Assess the site condi ons
- Explain the factors of system layout and design considera ons
- List the post survey ac vi es
- List the factors for selec ng the camera
- Explain the characteris cs of a camera
- Iden fy the factors for selec ng the camera lens
- Evaluate the selec on of the switcher, the monitor and the mul plexer

UNIT 3.1: Objec ve of the Module

– Unit Objec ves 🌀

At the end of this unit, you will be able to:

- Iden fy the factors to be considered for the designing process
- Explain the characteris cs of a camera
- Iden fy the factors to be kept in mind for selec ng the camera lens, switcher, monitor and mul plexer



- Ini ate the session with the par cipants by discussing about the objec ves of the module.
- Make the session interac ve by asking the par cipants to share their expecta ons from the module on the blackboard/whiteboard.
- Introduce the topics to be covered and give some informa on about them.
- Give the par cipants a general idea about what will be covered in the module.

UNIT 3.2 Pre-installa on Ac vi es

– Unit Objec ves 🎯



At the end of this unit, students will be able to:

- · List pre-installa on ac vi es
- Iden fy the factors to be considered for the designing process



- Tell the par cipants the importance of a good design process.
- Then, tell them that the system design for a CCTV installa on should start with an assessment of the customer requirements and an analysis of the site condi ons to ensure security and to make plans to mi gate the iden fied risks.
- In addi on, tell them that a CCTV installer should follow the design process to ensure a smooth workflow in the installa on process.
- Further, explain to them the steps involved in the pre-installa on ac vi es.
- Ac vity handling strategy: Create a checklist for designing the CCTV system.

1.	The system installed is in strict accordance with the agreed specification	
2.	Cable has been checked for continuity and is terminated correctly using proper connector	
3.	The resistance of the single loop cable has been tested according to the standard industry practices	
4.	The termination of the single loop cable has been tested according to the standard industry practices	
5.	The Cable length doesn't exceed the maximum capable distance for that particular cable type	
6.	Cabling is at least 5" from power lines of 2 kVA or less	
7.	Cabling is at least 12" from fluorescent lighting & power lines between 2 & 5 kVA	
8.	Cabling is at least 40" from transformers and motors	
9.	No Ground Loop issues are found / Proper isolators are used to eliminate ground loop issues	
10.	Adequate Power is provided to power the camera. (Check power cable at camera end to confirm)	
11.	12 Camera lens used has the correct focal length and provides the required field of view	
12.	Cameras do not face directly into the sun when installed outdoors or any lighting when installed indoors	
13.	In locations that are directly facing a source of light (entrances and exits), WDR cameras have been used	
14.	The camera view is in focus all the time under changing lighting conditions	
15.	For Cameras that do not function in low light areas, to improve visibility supplementary lighting is provided	
16.	All installed cameras field of view covers the designated areas as per the local laws and regulation	
17.	Alarms interfaces are tested and are triggering correctly	
18.	If UPS is installed the system continues to operate correctly to specification when there is power outage	
19.	Night recording has been tested for the IR Cameras installed	
20.	For PTZ Camera Pan, Tilt, Zoom, features has been tested	
21	All cameras have been tested for prepar video quality using a manitor before connecting to the DVP	

UNIT 3.3: Customer Requirements and Site Analysis

Unit Objec ves



At the end of this unit, students will be able to:

- Analyse customers' needs and requirements
- Assess the site condi ons
- Explain the factors of system layout and design considera ons
- List the post survey ac vi es



- Inform the par cipants that it is necessary for a CCTV installer to interact with the customer to understand the various factors involved in the design of the CCTV surveillance system.
- Tell them that a CCTV installer should conduct a thorough risk and need assessment for iden fying the loca ons and assets that will enjoy the benefits from the installed CCTV surveillance system.

Notes for Facilita on



Draw the following flowchart of the design process of the CCTV system on the black/white board to give the par cipants an overview of the design process:

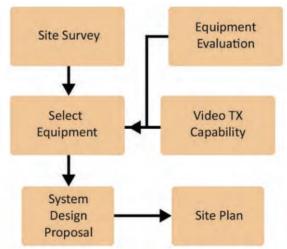


Fig 3.3.1: Flowchart of design process of CCTV system

- Tell the par cipants that the design of the CCTV surveillance system depends on various factors which are risk percep on, budget, ability and the installa on purpose of the customer.
- Inform them that to understand these factors, the installer needs to ask relevant ques ons to gather all the necessary informa on about the customer's needs. Also tell them that good planning is based on asking good ques ons.
- In addi on, tell them that there are various stages involved in CCTV designing and

installa on, such as:

- o Loca on survey/Site plan
- System design
- o System Design Proposal (SDP) document
- o Installa on planning
- o System installa on
- o Tes ng
- Further, tell them how to assess a customer's needs.
- Enquire from them if they know anything about risk and need assessment. Then, tell them
 that they should conduct a thorough risk and need assessment for iden fying the
 loca ons and assets that will enjoy the benefits from the installed CCTV surveillance
 system.
- Ask them if they can tell about some basic requirements of the customer for ge ng a CCTV installed. Then, tell them some common requirements such as for monitoring the tra c, monitoring the pa ents, observing a dassroom, monitoring a store and so on.
- In addi on, tell them some more specific CCTV surveillance requirements in public places, such as:

Helps in keeping public safety

Helps in catching a criminal

Helps in crime preven on

Provides a sense of security

Helps in collec ng evidences

Fig 3.3.2: CCTV surveillance requirements

- Next, tell them that a successful integra on of a CCTV system with other security systems requires a comprehensive site survey that will help to generate detailed equipment specifica ons and the installa on design.
- Explain to them the ac vi es that should be performed by a CCTV installer while conduc ng a site analysis such as understand the area and other specifica ons, iden fy installa on loca ons for CCTV camera such that maximum area is covered in the video and so on.
- Inform them that the loca on survey should have su cient details so that the security needs of the customers can be fulfilled. In addi on, tell them that the loca on survey should include the following points:
 - o Risk
 - o Contents
 - o Building

stome	୧୧ର tomer's Need and Requests					
\bigcirc	System design addresses risks and meets a customer's overall needs.					
$\tilde{\mathbf{C}}$	Products used meet the system features that customer requested.					
COMMENTS:						
tector	s					
\circ	Installed to manufacturers installation instructions.					
$\overline{\mathbf{C}}$	Cover within site boundaries.					
$\tilde{\mathbf{C}}$	All cabling and detection devices incorporate tamper protection.					
$\tilde{\Box}$	Each unique detector can be identified by the system.					
СОМИ	MMENTS:					
sition	ing and Configuration					
\bigcirc	Camera's field of view covers area of associated detectors.					
$\tilde{\bigcirc}$	Cameras do not face the sun or light directly.					
$\tilde{\cap}$	Cameras do not overlook public places.					
$\tilde{\cap}$	Camera type is appropriate for position and use.					
	MENTS:					
	/IEIVI 5:					

- Further, explain to them the informa on to be considered while designing a CCTV system with the help of the following points:
 - o System Layout Considera ons:

The system layout plays an important role for designing an outdoor CCTV system. The factors to be considered for making a system layout are coverage of the access points, the cri cal assets, the desired field of view and the loca on of the transmission hub.

o System Design Considera ons:

The CCTV installer should be aware of the specifica ons of the CCTV system components along with some other important factors.

The factors to be considered for crea ng the layout and the design of a CCTV system are ligh ng, power distribu on, video transmission, cost, infrastructure, reliability and maintainability.

- Ac vity Handling Strategy:
 - o Randomly choose the par cipants to men on one factor each.
 - o The factors to be considered for crea ing the layout and the design of a CCTV system include:

Ligh ng

Power Distribu on

Video Transmission

Cost

Infrastructure

Reliability and Maintainability.

UNIT 3.4: Selec on of Components

- Unit Objec ves 🎯



At the end of this unit, students will be able to:

- List the factors for selec ng the camera
- Explain the characteris cs of a camera
- Iden fy the factors for selec ng the camera lens
- Evaluate the selec on of the switcher, the monitor and the mul plexer

Ask ask

- Enquire from the par cipants if they know about the characteris cs of a camera. If they say yes, then ask them to list some of them.
- Ask them if they know anything about the dierent types of lenses.
- Ask them if they know what the func onality of sensors is.
- Enquire from them if they know anything about mul plexers.
- Ask the par cipants how to provide su cient power to security cameras?

Notes for Facilita on



Tell the par cipants that the performance of a CCTV system depends on the individual components of the system. Then, tell them that the important components of a CCTV system are a camera, a camera lens, a switcher, a monitor and a mul plexer.

Then, tell them that the following figure lists the factors that impact the selec on of a camera. What is the need for the CCTV System system? Do you want the cameras to be discrete or out in the obvious? The type of lens, what distance do you want the footage to capture and how recognisable do you want human faces to be? How large the lens has to be - How large of an area do you want to capture the footage? Will cameras be indoors - selec ng CCTV systems with correct ligh ng levels? What of the ligh ng condi ons, do you want to install it? Do you require audio on your CCTV footage? Will you prefer a wireless network system? How much storage will your business need and will you want to store it on site? What is the correct resolu on level? What part of your business do you want covered by the CCTV Surveillance? What are the expected challenges do you want to overcome? Choosing the right sensor - sensor size and sensor type Think about where you want that light to be Ensure that the Camera is Legal Fig 3.4.1: Factors that impact the selec on of a camera

- Further, elaborate the following characteris cs of a camera:
 - Weatherproof
 - o Infrared Capability
 - o Remote Video Monitoring
 - o Vandal Resistant
- In addi on, also tell them about the various types of cameras with the help of the following points:
 - o Box Cameras: It is a type of fixed camera and is suitable if no movement or adjustment is needed once it is installed. However, box cameras can combine with a modular pan/ It driver.

- o Zoom Cameras: It is a special type of box camera that includes an op cal and mechanical zooming device. The camera movement is not available once it is installed; but its zoom capability provides the zooming func on so as to enlarge and reduce the acquired images, when required.
- o Dome Cameras: A Dome camera is a fixed type of camera designed to be installed on a ceiling. The lens module included with the dome camera should be adjusted to frame the desired monitoring angle during installa on.
- o Infrared Cameras: These types of cameras have built-in IR (Infra-Red) LED illuminators. They create brighter and dearer images under low-illuminated situa ons compared to non-IR illuminated cameras. The camera's visible range and other condi ons depend on the specifica on and number of IR LEDs.
- o PTZ Cameras: PTZ cameras are capable of being remote controlled for their directional and zoom movement an er installa on. PTZ means Panning (side to side), Ing (up and down) and zooming (in and out). A PTZ camera is suitable for monitoring multiple areas or moving objects rather than fixed views.
- · Next, brief them about the selec on of lenses.
- Tell them that Angle of View se ngs plays a vital role in selection of lenses.
- Inform them that the main use of CCTV monitors is in industries. They cannot receive any TV broadcast as there is no in-built TV tuner.

Tell the par cipants about the camera sensors:

Field of View (FOV)

• Field of View is the area, in width, that the lens will allow to see.

Monofocal vs. Varifocal

- Monofocal lenses or 'fixed' lenses can only focus at a specific distance.
- Varifocal lenses will usually have a range, like 2.5-6mm or 5-50mm.

Zoom Lenses

• Zoom CCTV lenses are bit more expensive because, well, they are be er.

Manual vs. Auto Iris

- A manual or "fixed" iris lens is one you use if you are in an area where the ligh ng does not change, like an o ce.
- An auto iris lens will automa cally adjust for light varia ons. You'll probably need an auto-iris lens for outdoor surveillance.

Camera/Image format

- most CCTV cameras list either 2/3", 1/2", 1/3", or 1/4" for their CCD image sensor. This will a ect your field of view.
- The larger the image sensor, the larger the field of view the camera has.

Aperture Rate (F-Stop)

- Aperture, measured in F numbers, is the camera's ability to gather light.
- The lower this F number is, the larger the lens aperture will be, the more open your lens, and the be erit will be at allowing light to pass through and onto the CCD image sensor.

Fig 3.4.2: Camera sensors

- Explain the par cipants how to provide su cient power to security cameras.
- Explain the security camera needs large current when it firstly boots, plus the transmission consump on, therefore, to calculate total required power supply, doesn't mean rated power of each camera is simply added together.
- Explain that the correct method is adding the rated power, then mul ply 1.3, the result is the real required power supply for security cameras, and additionally it is essent alto consider the cable power consumping on and power budget.
- Give them an example:
 - If we install 100 units' security cameras in a commercial building, the rated power consump on is 4W for the security camera. How to calculate the required power supply?
 - o Security camera power consump on: $4W \times 100$ unit's $\times 1.3 = 520W$ A er the consump on, the needed power rang: $520W \times 1.3 = 676W$ Cable consump on and power budget: $676W \times 1.3 = 878W$
- Tell the par cipants why using a centralized or one power supply source must be avoided. The reason as below:
 - o When turn on/o power supply to repair video camera system. All security cameras start to boot, the required boot current is huge, this will have great impact to power

- supply, may lead to damage the power supply.
- o If all the security cameras use a single power supply. Once the power supply encounters problem, the whole video security cameras will turn o . Especially for some important entry-points where you can't monitor.
- Tell them about some features of an LCD monitor such as space-saving thinness, low power consump on, o angle viewing and so on. In addi on, tell them some of its advantages with the help of the following points:

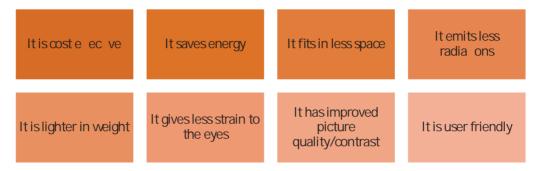


Fig 3.4.3: Advantage of LCD monitor

- Tell them that a switcher enables the operator to view the screens on the same monitor.
 Switchers enable the switching of the output of a camera in a sequence or by the means of a split screen on a single monitor.
- Further, explain to them about the di erent types of switchers.
- Next, tell them that the main func onality of a mul plexer is that it selects one of several analog or digital input signals and forwards the selected input into a single line.
 Then, tell them about the func on of a mul plexer in a CCTV system with the help of the following link: h p://www.cctv-informa on.co.uk/i/What is_a_Mul plexer%3F
- Inform them that for video signal transmission, coaxial cables are generally used with an impedance of 75. In addition, also tell them about the characteristics of different high frequency cables as shown in figure:



Fig 3.4.4: High frequency cable

- Further, explain to them about the di erent types of switchers.
- Ac vity handling strategy:
 - o Match the following condi ons that an installer must be aware of with the appropriate tools to be used in that situa on.

Condi ons to be Determined	Equipment/Tool to be selected
Target and observa on range	Lens (wide-angle, standard and zoom), number of cameras and motorized pan/ It head
Synchroniza on Method	Ver cal gen-lock and drive unit

Installa on place	Camera housing and outdoor box
Number of monitors	Video signal splitter, switcher, Mul -viewer, mul plexer and Matrix switcher
Monitor screen size	Monitor: CRT or LCD typically
Instant response Capability	Sensor and present memory system









4. CCTV Camera Installa on

Unit 4.1 - Objec ve of the Module

Unit 4.2 - Planning for CCTV Camera Installa on

Unit 4.3 - Installing the Camera

Unit 4.4 - Checking the Camera Func ons





Key Learning Outcomes 💆

At the end of this module, you will be able to:

- Explain the posi oning of camera
- Iden fy the protec on grades
- Perform the steps for installing a dome camera
- Iden fy the steps of installing a box and a PTZ camera
- Perform ac vi es for achieving standards
- Iden fy various camera func ons
- Explain synchroniza on of camera

UNIT 4.1: Objec ve of the Module

– Unit Objec ves 🎯



At the end of this unit, you will be able to:

- Iden fy the correct posi on of the camera and the protec on grades
- Perform the steps for installing a dome camera
- Iden fy the steps of installing a box and a PTZ camera
- Understand the various camera func ons and how to synchronize the camera



- Ini ate the session with the par cipants by discussing about the objec ves of the module.
- Make the session interactive by asking the participants to share their expectations from the module on the blackboard/whiteboard.
- Introduce the topics to be covered and give some informa on about them.
- Give the par cipants a general idea about what will be covered in the module.

UNIT 4.2: Planning a CCTV Camera Installa on

Unit Objec ves

At the end of this unit, students will be able to:

- Explain the posi oning of camera
- List the environmental condi ons to be considered for camera installa on
- Iden fy the protec on grades
- Draw the layout for installa on



- Tell the par cipants that a CCTV installer must be aware of the CCTV installa on process to be able to carry out the installa on correctly.
- Tell them that the installa on of CCTV camera includes:
 - o Moun ng the camera
 - o Placing the DVR
 - o Managing the cables
 - o Connec ng the wires
 - o Powering on the system
- You may draw following diagram showing a CCTV connec on:

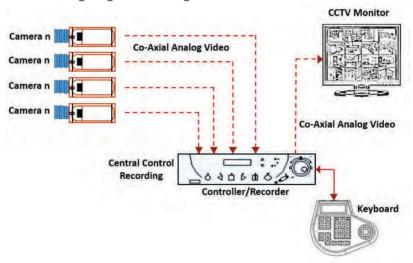


Fig 4.2.1: CCTV connec on

- Ask the par cipants the following ques on:
 When assessing which type of network cable to be installed, which type of cable should be selected?
- A er you have got a few answers, tell them that copper has some advantages, including
 the fact that it already exists in many places and is less expensive to connect network
 devices
- Tell them, while fibre op c cables are more expensive, there are several advantages that make it a more en cing cable infrastructure solu on than its copper counterpart.

Tell the par cipants about reasons of choosing Fibre Op c Cables against Copper Op c Cables.

Fiber op c transmission is faster.

Fiber op c transmission results in less a enua on.

Fiber op c cables are impervious to electromagne c interference (EMI).

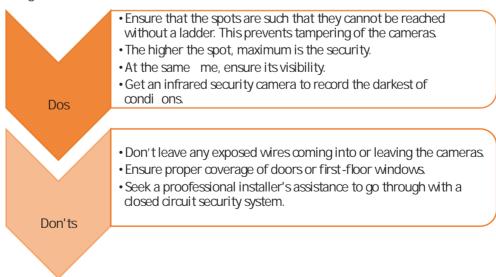
Light cannot catch on fire.

Fiber op cables do not break as easily.

Fig 4.2.2: Reason of choosing fibre op c cable

Fig 4.23: Dos and don'ts that a ect CCTVs

- Also, inform the par cipants that while placing the CCTV cameras, e orts should be made
 to find the most suitable posi on that has maximum area coverage. The appropriate
 posi on of the camera will ensure be er monitoring task.
- Further explain to them the factors helpful in determining the correct posi on of the camera such as:
 - o The first step when se ng up any CCTV system is to plan exactly what and how much area of a room or surrounding needs to be monitored.
 - o Another important considera on is the height at which the camera needs to be placed.
- In addi on, tell them some environmental condi ons that should be considered while installing the CCTV camera such as brightness, temperature and humidity, lightning and so on.
- Explain a few pointers related to the environmental condi ons a ec ng CCTVs in the form of things that should be done and what should not be done as shown:



Next, tell them that camera housings should be manufactured as per Interna onal Electro
Technical Commission (IEC) standards. Also tell them a few IEC529 protec on grades. Give
an insight of protec on grades under harsh environment condi ons such as shown in
figure:



Fig 4.2.4: Insight of protec on grades under harsh environment condi ons

• Depending on the requirements and components of the CCTV system, next step is to create a layout for the components in a block diagram, as shown in the following image:

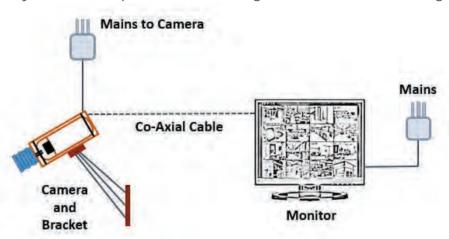


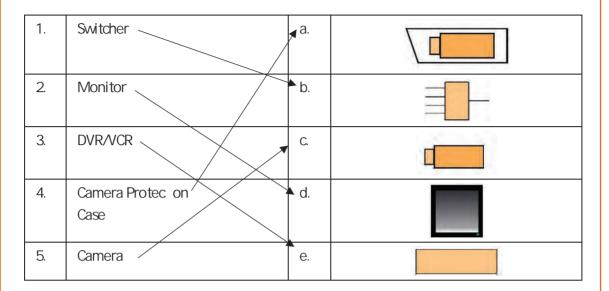
Fig 4.25: Block diagram of layout of CCTV system

• Tell them that a block diagram includes the scheme or strategic placement of video cameras.

Show the par dipants the following images of surveillance CCTV cameras layout: COMPUTER NETWORK VIDEO cco ATTN. MULTIPLEXER ссо SPLITTER cco RECORDER cco SCREEN Monitor Hard Disk Recorder Lens Camera and Multiplexer Power Coaxial Video Power Power Cables Power Fig 4.26: Surveillance CCTV cameras layout Further draw the various shapes used in the block diagram on the black/white board.

Fig 4.2.7: Shapes used in the block diagram

- Ac vity Handling Strategy:
 - o Ask the par cipants to iden fy the shapes of the given components.
 - o Solu on:



- Ac vity Handling Strategy:
 - o Randomly choose the par cipants to answer the given ques ons.
 - o Solu on:
 - o 1-b
 - o 2-b
 - o 3-b
 - o 4-c

UNIT 4.3: Installing Camera

Unit Objec ves



At the end of this unit, students will be able to:

- Iden fy the steps of installing a dome camera
- List the steps of installing a box camera
- List the steps of installing a PTZ camera
- Iden fy the ac vi es for achieving standards

Demonstrate



- Steps of installing a Dome camera.
- Steps of installing a Box camera
- Steps of installing a PTZ camera.

Resources



- Tool box
- Dummy CCTV camera Dome, Box and PTZ
- Checklist

Notes for Facilita on



- Demonstrate the steps for installing the dome, box and PTZ cameras.
- Show the following image for reference to the par cipants while installing a dome camera:
 - 1. Fixing camera base on ceiling as shown in the figure:



Fig 4.3.1(a): Fixing camera base

2 Adjus ng lens to suitable posi on as shown in the figure:



Fig 4.3.1(b): Adjus ng lens

3. Fixing dome cover on base as shown in the figure:



Fig 4.3.1(c): Fixing dome cover

• Show the following image for reference to the par cipants while installing the bracket of a dome camera:

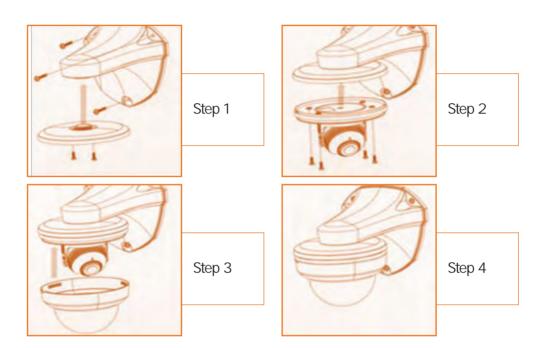


Fig 4.3.2 Steps for installing the bracket of a dome camera

• Further explain to them some safety precau ons while installing the cameras with the help of following points:

Select a proper loca on and use safe hoist for installing speed dome cameras.

Confirm that the hoist is capable of li ing to the installa on posi on.

Follow the protec ve measures that are provided for the hoist, for its protec on.

Ensure that power supply is 110V/220V.

Ensure safety precau ons for preven ng electric shock.

Fig 4.3.3: Safety precau ons while installing the cameras

In addi on, tell them some precau ons to be followed while installing the camera:

The installa on process must comply with local safe regula ons.

Ensure that all the required accessories are complete.

Check if the installa on loca on is at su dient height.

Ensure that the installa on loca on is strong enough for suppor ng the camera(s).

Select appropriate cable length for the installa on distance.

Prior to installing the camera, camera self-tes ng needs to be executed.

A er unpacking the camera, it is necessary to dispose the packaging properly.

Proper safety precau ons and protec ve measures must be taken into considera on while installing the camera.

Before switching on the power, make a final check to confirm correct wiring.

Fig 4.3.4: Precau ons to be followed while installing the camera

• Lastly, tell them the ac vi es to be performed during installa on to achieve desired standards.

UNIT 4.4: Camera Func ons

– Unit Objec ves 🧖

At the end of this unit, you will be able to:

- Iden fy various camera func ons
- Explain synchroniza on of camera

Ask ask

- Enquire the par cipants if they have heard about the following terms before:
 - o Backlight Compensa on (BLC)
 - o Automa c Sensi vity Adjustment (AES)
 - o Wide Dynamic Range (WDR)
 - o Image Enhancer
 - o Flicker Reduc on
- If they say yes, then ask them to tell something about these terms.
- Ask them what they understand by the term synchroniza on.

Notes for Facilita on



- Tell the par cipants that the CCTV installer needs to be aware of various func ons of the camera.
- Then explain to them various func ons of the camera with the help of following points:

Backlight Compensa on (BLC)	When bright light falls on the screen, the brightness is modified to accommodate the bright area of the image such that the front object becomes dark.	
Automa c Sensi vity Adjustment (AES)	This func on enables the camera to adjust the screen brightness and maintain it at a certain level by modifying the speed of the shu er.	
Wide Dynamic Range (WDR)	WDR func onsenable the cameras to release automal cleectric shull ers (AES) two mesiper frame, and then process the resulling images in such a way that both bright and dark objects are easily visible.	
Image Enhancer	This func on adjusts and sharpens the contours of objects for reproducing be er images with full darity.	
White Balance	This func ons helps in making the appearence of white objects correctly using various color reproduc ons.	
Day and Night Func on	This func on is similar to the high sensi vity accumula on func on.	
Automa c Gain Control (AGC)	This func on helps in maintaining consistency of screen brightness by electronically adjus ng the video signals.	

- Similarly, tell them about flicker reduc on, high-sensi vity accumula on and privacy masking.
- Further, explain to them about synchroniza on. Tell them that synchroniza on involves the ming of scanning of video images.
- In addi on, tell them about internal and external synchroniza on.
- Tell them about line lock synchroniza on.
- Lastly, brief them about the basic terms related to CCTV surveillance system:

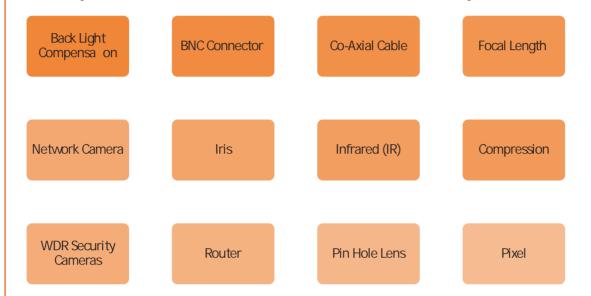


Fig 4.4.2 Basic terms related to CCTV surveillance system











5. Set Up CCTVSurveillance System

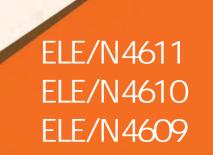
Unit 5.1 - Objec ve of the Module

Unit 5.2 - Connec ng Camera and DVR with System

Unit 5.3 - Configuring Network Se ngs

Unit 5.4 - Checking the Func oning of the System





Key Learning Outcomes 💆



At the end of this module, you will be able to:

- List the steps of DVR installa on
- Explain the opera on of DVR
- Iden fy the controls of DVR
- Configure network se ngs
- Explain on-screen display se ngs
- Manage hard disk drives
- List various PTZ controls
- Check camera func oning
- Achieve quality standards and produc vity

UNIT 5.1: Objec ve of the Module

Unit Objectives 6

At the end of this unit, you will be able to:

- Understand about opera on and controls of Digital Video Recorder (DVR)
- Explain configura on of network se ngs and out on-screen se ngs and managing hard disk drives
- Lists various PTZ controls along with steps to check camera func oning and a chieving quality standards and produc vity

Notes for Facilita on



- Ini ate the session with the par cipants by discussing about the objec ves of the module.
- Make the session interactive by asking the participants to share their expectations from the module on the blackboard/whiteboard.
- Introduce the topics to be covered and give some informa on about them.
- Give the par cipants a general idea about what will be covered in the module.

UNIT 5.2: Connec ng Camera and DVR with System

Unit Objectives 6

At the end of this unit, students will be able to:

- List the steps of DVR installa on
- · Explain the opera on of DVR
- Iden fy the controls of DVR

Ask



- Ask the par cipants if they know about the steps to install a Digital Video Recorder (DVR).
- Ask them about the dierent ports of a DVR and its features.
- Ask them if they can operate a DVR.
- Ask them about the controls of a DVR.

Explain



- Explain to the par cipants the basic steps involved in installing a DVR, such as:
 - o Unpack and posi on the Digital Video Recorder (DVR) in the best suited loca on as per customer's need
 - o Connect the cameras installed to the DVR
 - o Connect the monitor (TV/PC) to the video output connec on in the DVR
 - o Connect speakers for audio output to DVR
 - o Connect the op onal camera controls to DVR
 - o Use DVR link op on to connect with other DVRs in the network
 - o Connect the DVR to router, if required, for remote monitoring

- Use pictures to explain in detail about the following steps for DVR installa on:
 - o Open the screws using a screwdriver and remove the cover of DVR unit. Check the DVR as shown in the figure:



Fig 5.2.1(a): Checking the DVR

o Connect data cable to the specified data port on the panel board as shown in the figure:



Fig 5.2.1(b): Connec ng data port on the panel board

o Place the hard disk within the DVR unit and fix it in the unit with screws as shown:



Fig 5.2.1(c): Placing hard disk within DVR

- o Close the cabinet placing the cover back on it and fixing it the screws.
- o A ach the power adapter connector to the DVR unit and connect the USB mouse as shown below:



Fig 5.21(d): Connec ng power adapter and mouse to DVR

o A ach the cables coming from the camera to the connector specified on the DVR.





Fig 5.2.1(e): Connec ng cables to DVR

• Brief the par cipants about the ports of a DVR panel, such as shown in figure:

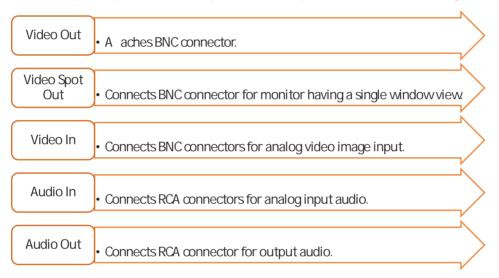


Fig 5.22: Ports of a DVR panel

- Tell the par cipants about the important steps a er comple ng the installa on of a DVR:
 - o Give a demo of DVR system opera ons to the customer.



Fig 5.2.3: Demo of DVR system

- o Make sure that the controls of the system work properly.
- o Make sure that op onal camera proper es such as pan, It, zoom work properly.
- o Monitor and try to switch to other cameras connected in the system.
- o View, record and replay the video captured in the system.
- o Correct/fix issues such as no video, lack of clarity in the system, if any.
- Explain ways for navigating and opera ng the DVR.
- Tell the par cipants that a DVR can be controlled using the front panel controls, Infrared (IR) remote or a mouse/so keyboard.



Some common controls of a Remote are:

Fig 5.2.4: Common controls of a Remote

- · Ac vity handling strategy: Prac cal
 - o Perform the task of installa on of CCTV with DVR at a customer site.

The candidate must be able to:

Greet the customer politely.

Look for the place where the CCTV is to be installed.

Remove the DVR set from the package, which includes DVR unit, mouse, power supply adapter and cords.

Open the screws using a screwdriver and remove the cover of DVR unit.

Connect data cable to the specified data port on the panel board.

Place the hard disk within the DVR unit, at the space provided and fix it in the unit with screws.

Close the cabinet placing the cover back on it and fixing it the screws.

A ach the power adapter connector to the DVR unit. Connect the compa ble USB mouse to the DVR.

A ach the cables coming from the camera to the connector specified on the DVR.

o Ac vity handling strategy: Install an IP Camera at a customer site.

The candidate must be able to:

- o Greet the customer politely.
- o Look for the place where the CCTV is to be installed.
- o Remove the set from the package.

o Assemble the stand:

The assembly of camera can be done in two dierent ways, from:

- a. the top of the unit
- b. the bo om of the unit

Use the three plugs along with screws for fixing the stand bracket to a wall/ceiling/any fixing point.

Adjust the stand to allow the camera to rotate at full 360° and a pan and It ac on.

Follow the above steps to mount from the base of the unit, a aching the stand bracket to the moun ng point on the base of the unit.

- o Connect the camera to an Ethernet hub or switch using a standard cable. You can also connect the camera directly to a computer using the supplied cable.
- o Connect the power adapter to the DC-IN socket on the camera.
- o To install the camera on a network, you first need to give it an IP address.
- Ask the network administrator to obtain an IP address suitable for the given network, along with:

Netmask

Gateway address

h p port

UNIT 5.3: Se ng Up the System

Unit Objectives 6



At the end of this unit, students will be able to:

- Configure network se ngs
- Use on screen display se ngs
- Manage hard disk drives

Ask ask



- · Ask the par cipants if they can carry out the basic network se ngs for remote monitoring.
- Ask them about the PPPoE se ngs or if they remember what PPoE is.
- Ask them if they can configure Network Time Protocol (NTP) Server.
- Ask them about the controls of a DVR.
- Ask them if they can set up a Remote Alarm Host.

Explain



- · Explain the par cipants about the basic steps to be carried out by the installer for configuring the system for remote monitoring.
- Brief the par cipants about basic network se ngs.
- Explain the par cipants that PPPoE access se ngs can be done using the following steps as shown in the figure:

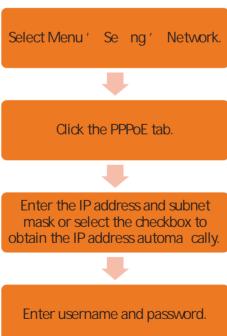


Fig 5.3.1: PPPoE access se ngs

• Tell the par cipants about the following steps for se ng up a remote alarm host as shown:



Fig 5.3.2: Steps for se ng up a remote alarm host

- Explain the par cipants about configuring On Screen Display (OSD) se ngs.
- Tell them that OSD se ngs allows the operator to adjust brightness, contrast and privacy masking and that its se ngs can be done following the given steps:

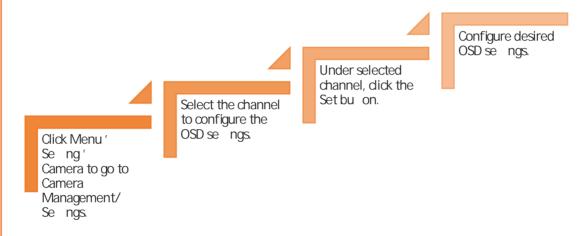


Fig 5.3.3: Steps for OSD se ngs

• Explain the defini on of Hard Disk Drives (HDD). Show them some images of typical hard disk drives used in DVRs, such as:







Fig 5.3.4: Hard disk drives

- Tell them that a hard disk drive (HDD), hard disk, hard drive or fixed disk is a data storage device that uses magne c storage to store and retrieve digital informa on using one or more rigid rapidly rota ng disks (pla ers) coated with magne c material.
- Explain how HDD can be managed:
 - o Ini alizing HDD
 - Go to HDD Management menu, by dicking Menu ' HDD
 - o Grouping HDD

Videos from designated channels can be set in a way such that it can be recorded on a par cular HDD group.

Go to the HDD Management menu and select the HDDs that are to be added to group.

Go to Group Se ngs by selec ng Group bu on.

Set HDD Group Number

o Se ng HDD Status

Behaviour of HDD can be changed by modifying its status. The status of a HDD can be set to redundancy, read-only or read/write (R/W).

- Ac vity handling strategy: Perform the task of se ng up the DVR for remote surveillance. The candidate must be able to:
 - o Login to DVR. Press the menu bu on on the DVR or on the wireless remote control.
 - o Press the OK bu on on the DVR or remote. If an admin password is set up for DVR, then press OK.
 - o Select External Device from the menu.
 - o Select TCP/IP Setup.
 - o Select DHCP setup and press enter.
 - o Confirm that the DHCP mode is set to automa c.
 - Select Detect IP and press enter. The screen should refresh and populate values below
 - Note the IP address.
 - o Select DHCP Mode and press OK.
 - o Press the menu bu on to return to the TCP/IP setup screen.
 - o On the TCP/IP setup screen, select IP configura on setup and press enter. On the IP configura on setup screen, confirm the port number of your DVR as seen below.
 - Press the Menu several mes on your DVR or remote un I one exits out of the DVR menu system.
 - o See the live view of your cameras.
- Ac vity handling strategy: Perform the task of assignment of an IP Address to DVR.
 The candidate must be able to:
 - o Disable DHCP on the DVR.
 - o Assign the designated local IP address of the DVR.
 - o Write down the MAC address of DVR.
 - o In the "DHCP Reserva on List", enter the DVR's MAC address, and the desired IP.
 - o Open the LAN menu by dicking on Main Menu > LAN.
 - o Enter the desired IP address that is in the range specified by the router.
 - o Disable DHCP.

- o Right-dick to save se ngs.
- o Click on LAN & DHCP Server, under the main menu
- o Configure the following:
 - a. Sta c DHCP: Select Enabled and then dick Apply
 - b. Name: Enter the desired name of your device
 - c. IP Address: Enter the IP address that must be the same address specified in the $\ensuremath{\mathsf{DVR}}$
- o Click Add. The DVR info appears in the Sta c DHCP list.

UNIT 5.4: Checking the Func oning of the System

Unit Objectives 6

At the end of this unit, students will be able to:

- Iden fy various PTZ controls
- · Check camera func oning
- · Achieve quality standards and produc vity

Ask



- Ask the par cipants if they can carry out the basic network se ngs of remote monitoring.
- Ask them about the PTZ controls.
- Ask them how they can ensure customer sa sfac on.

Resources



- DVR
- Cables
- Cameras
- Remotes

Explain



• Explain the par cipants the importance of ensuring that the CCTV system is func oning properly and the output is as per the customer's expecta on. You may use the following image to show the various features that can be captured using the CCTV camera:



Fig 5.4.1: Various features that can be captured using the CCTV camera

• Explain the par cipants that a customer must be educated about certain controls of the camera.

The CCTV placed on a ceiling would be as shown in the figure:



Fig 5.4.2: CCTV placed on a ceiling

- Detail out the steps to the par cipant for checking camera performance:
 - o Check the performance of the camera in all the available light levels. For outdoor cameras, check the performance during both day and night me.
 - o Check the coverage area of the lens for each loca on and ensure the lens fills the specified condi on.
 - Check the number of cameras and ensure that all of them provide the required coverage

For zoom lenses, ensure that they have been properly back focused that enables the lens to focus on the object of interest during the zooming in and out.

 Check that all cameras are synchronized properly. The lack of synchroniza on can result a lot of problems.

Watching jumping images con nuously, makes the operator irritated.

It may lead to poor quality recording such as colour disorienta on, skipping of picture frames.

- Explain the par cipants that resolu on and sensi vity are considered the main criteria for a camera performance.
- Define sensi vity by telling them that it is the minimal amount of light used by a camera to produce a useable image.
- Explain the term resolu on by defining it as the measure of a picture's detail in the image produced by the camera.
- Tell them that resolu on is measured in lines.
- A resolu on is normally horizontal.
- Emphasise that an installer must check the performance of other components such as DVR, switcher etc.

• Tell the par cipants about a few commonly used symbols such as shown in figure:

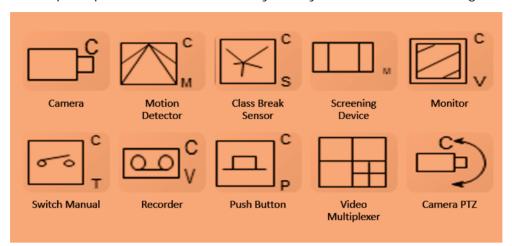


Fig 5.4.3: Commonly used symbols

• Tell the par cipants about the checks that must be performed by an installer:

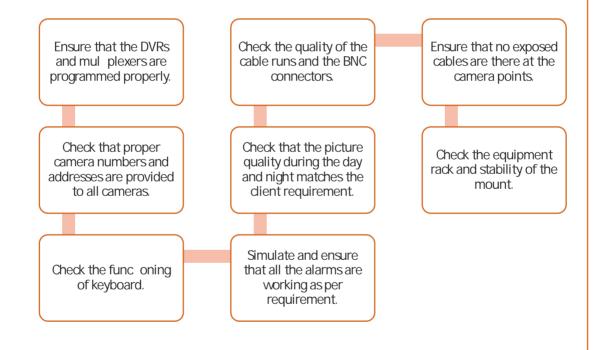


Fig 5.4.4: Checks that must be performed by an installer

 Explain the par cipants of the necessary documents that must be handed over to the customers. • List a few documents for the par cipants, that are as shown in figure:



Fig 5.4.5: Documents for the par cipants

- Explain to them about SLA by saying that a Service Level Agreement is a formal contract between the service provider and the customer, defining services, responsibilities, scope and dues of both the parties.
- Tell them about the importance of an SLA. An agreement of a sort is therefore important to understand that both the par es customer and organisa on– have du es and responsibili es to each other and these must be properly detailed. This is where SLA comes in. An SLA is a formal contract between the service provider and the customer, defining services, responsibili es, scope and du es of both the par es. For instance, an IT hardware company may o er rou ne inspec on and maintenance service for a certain period of me as part of one- me cost at the me of purchase of equipment. The following image shows an SLA:



Fig 5.4.6: Service level agreement

- Further, tell them that it's important for the service engineer to read and understand the SLA before visi ng a customer, so that all the queries, support and service can be addressed according to the terms specified. This will minimize all the issues related to service expecta ons of a customer.
- Explain to the par cipants that there is a formal process of addressing IT related issues and problems when they appear known as escala on process.
- Talk to the par cipants about why a plan needs to be flexible.
- Tell them about following a proper code of conduct in terms of behaviour and work output delivered.
- Explain the challenge at a workplace of discovering ways for increasing produc vity and keeping the quality of produc on intact.
- Tell them the importance of being healthy such as:
 - o Helps to prevent absence from work
 - o Improves work performance
 - o Demonstrates work responsibility
 - o Reduces accidents and work-related ill health
- Ac vity handling strategy: Create a checklist for performing the post installa on ac vi es.

Ac vity	Status (Done/Not Done)
Number of cameras	Done
DVR modules checked	Done
Cameras connected to DVR	Done
Synchroniza on	Done
Func oning of CCTV DVR	Done
Func oning of Cameras	Done
Audio IN	Not Done
Video IN	Done











6. So Skills

Unit 6.1 - Objec ve of the Module

Unit 6.2 - Basic Communica on Skills

Unit 6.3 - Interact with Supervisor

Unit 6.4 - Coordina on with Colleagues





Key Learning Outcomes 💆



At the end of this module, you will be able to:

- Iden fy the basic communica on skills
- Define listening, communica on, cri cal thinking and decision making
- Iden fy reflec ve and cri cal thinking skills
- · Recognize factors that limit decision making skills
- Iden fy work requirements
- Describe the right work ethics
- Iden fy the right way to interact with supervisor
- Define the role of team members
- Iden fy the correct way to interact with colleagues
- Iden fy work place rela onships

UNIT 6.0. Objec ve of the Module

Unit Objec ves @

At the end of this unit, you will be able to:

- Explain listening, communica on, cri cal thinking and decision making
- Explain reflec ve and cri cal thinking skills
- Iden fy work requirements and the right way to interact with supervisor and colleagues
- Understand the role of team members
- Iden fy work place rela onships

Notes for Facilita on



- Ini ate the session with the par cipants by discussing about the objectives of the module.
- Make the session interac ve by asking the par cipants to share their expecta ons from the module on the blackboard/whiteboard.
- Introduce the topics to be covered and give some informa on about them.
- Give the par cipants a general idea about what will be covered in the module.

UNIT 6.2: Basic Communica on Skills

Unit Objec ves 6

At the end of this unit, students will be able to:

- Iden fy the basic communica on skills
- Define listening, communica on, cri cal thinking and decision making
- Iden fyreflec ve and cri cal thinking skills
- Recognize factors that limit decision making skills

Ask G



- Ask the par cipants if they know how to communicate with colleagues.
- Ask the par cipants if they can share their experiences of any discords between people.
- Ask the par cipants if they know about the importance of adherence to me and quality.
- Ask the par cipants if they know about the personality traits and skills required for the job of a technician.



Tell the par cipants that they should know the right way to handle the customers, understand their needs and provide the right service to them as per the company's standards and policies.

Explain



- Explain how to communicate with colleagues.
- Explain the importance of listening skills and customer feedback.

Demonstrate



- Show the par cipants:
 - o A sample of a job sheet to be filled by a technician
 - o A sample of an invoice given to the customers by a technician
 - o A sample of a checklist to be filled for a specific job/task.

Notes for Facilita on



- Make the session interac ve by involving the par cipants in a discussion and introduce the topics to them.
- Give the par cipants a brief overview of what all will be covered in the course.

- Ask the par cipants about the expecta ons from the course. Then, inform them briefly about the major topics that will be covered in this course.
- Tell the par cipants that it is important to follow workplace ethic to maintain harmony and peace among colleagues.
- Tell them about the proper way of comple ng documents and their importance.
- Invite the par cipants to share their experiences, good or bad related to communica on at the workplace.
- Tell the par cipant about communica on and define communica on as a two-way process.
- Explain to the par cipants that the sender of a message is someone who has a need to communicate with another person, the receiver of the message and is the person who sends a message. This happens in a medium and then reaches the receiver who then responds, based upon the understanding of the message.
- Discuss with the par cipants how communica on is said to be complete when the receiver understands the message in context in which it was meant to be understood.
- Tell the par cipants that communica on includes:
 - o Verbal communica on It mainly consists of the spoken words, such as, you are talking to your team members, talking on phone with the customer and so on.
 - o Non-verbal communica on It consists mainly of gestures, facial expressions, movement and so on. You show a thumps up to say that the projector is now set and ready to be used while standing at a distance from the instructor.
 - o Wri en communica on It is the wri en form of communica on such as, reports, analysis, e-mails and so on.
- Explain to the par cipants about some basic dos and don'ts of communica on using the following points:

Dos	Don'ts
Communica on should be very dear	Do not communicate when not sure.
and precise. Men on all the details	Also, never give incorrect details.
required to take ac on. Also, men on	
dearly the ac on intended.	
Communica on should be concise or	Never give an incomplete message.
short. It should not have irrelevant	
details which are of no concern to the	
recipient of the message.	
Communica on should be concrete.	Never communicate in an un-
Men on the specific and ac onable	courteous way
things.	
The message in communica on should	Do not use jargons that the recipient
be coherent or should be related. If	may be unfamiliar with. Do not use
there is something extra to be	complex words or sentences.
men oned, then men on clearly that it	
is an addi on. Meaning is derived	
when the en re message is in context.	

Fig 6.2.1: Dos and don'ts of communica on

- Explain to the par cipants that to be able to listen ac vely and to ensure that they can respond and understand e ciently, they need to:
 - Stop talking to listen to what the other person has to say.
 - o Not jump to a conclusion or respond the moment the other person begins to speak.
 - o Try not to be defensive in a conversa on, especially while receiving a feedback.
 - o Show interest in listening to a person who is speaking through non-verbal dues such as a nod or words such as 'hmm', 'yes' and so on.
 - o Ask for details to get complete informa on so that nothing is missed out.
- Tell the par cipants that the decision-making process has the following steps:
 - o The first step in a decision-making process is to iden fy the problem.
 - o Then, gather details about the problem and its possible solu on. The more data they have the be er decision making they can do.
 - o Third step is to analyse the problem. They may need to use mathema callor sta s call tools to arrive at a point which will help them to take a decision.
 - o Develop alterna ves, which will help to have a plan B in case plan A does not work.
 - o Finally, choose the best op on.
- Then, tell the par cipants about some pointers that they need to keep in mind for decision making and cri cal thinking.
 - o It is based upon previous knowledge and they will draw their learning from it.
 - o It will help them to understand the process and suggest improvements by elimina ng the waste.
 - o It requires them to be thorough with the process and also to be updated with new developments.
 - o It will help them to spot process disrup ons and the reasons for them.
 - o It will help them to analyse the reason for delay and how improvements can be done.
- The cri cal thinking process can be defined as given in the following figure:



Fig 6.22 Cri cal thinking process

- Explain to the par cipants how listening reduces conflicts between people working together, reflects a caring a tude, increases the rate at which work is being done and decreases a scope of duplica on of e orts.
- Men on about the di erent types of listening to the par cipants namely:
 - o Cri cal listening
 - o Empathe clistening
 - o Discrimina ve listening
 - o Comprehensive listening
 - o Apprecia ve listening
- Tell the par cipants about the job sheet filling procedure in detail along with its importance.

• In addi on, tell them the content of a job sheet as shown in the following figure:



Fig 6.23: Content of a job sheet

- Tell the par cipants that some mesit is possible that the technician has to fill some field in the invoice.
- In addi on, tell them a technician may also need to adhere to and fill a checklist for a specific job/task.
- Tell the par cipants that to fill the checklist, the technician should be able to read it correctly and then fill the correct responses based on the task completed.
- Discuss about the 5 C's of communica on skills as shown in the following figure:

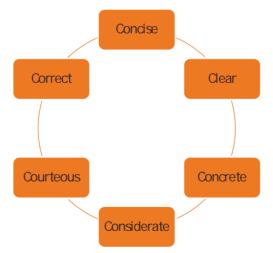


Fig 6.2.4: 5 C's of communica on skills

- Explain to the par cipants about the importance of communica on with the customers so as to know their requirement.
- A technician should be able to understand the correct requirement in order to give the right kind of service. The complaints or work requirements will flow in from the customer care centre or from the supervisor.

- Tell the par cipants that if a complaint has been lodged, the technician should have darity about the work, customer loca on and details of the product's problem before going to visit the customer.
- Tell them about how there a situa on can be when a technician might be able to understand the real problem only a er physical examina on, but it always helps to understand the problem briefly before paying a visit to the customer.
- Tell the par cipant how a situa on may save an extra visit that could hap pen because of incomplete informa on.
- · Explain to the par cipants about the importance of personal grooming.
- Tell the par cipants that they represent the company in front of the customer and therefore they should take care of personal grooming.
- Explain to the par cipants the importance of personal hygiene, for e.g. when they visit the customer:
 - o Their dothes should be neat and dy.
 - Their hair should be trimmed.
 - o They must not smell of sweat as this creates an unhealthy impression in front of the customer.
- Explain to the par cipants the importance of following workplace e que e.
- Explain how workplace e que e is the accepted social behaviour while working along with others in a team. It includes the norms as shown in the following figure:

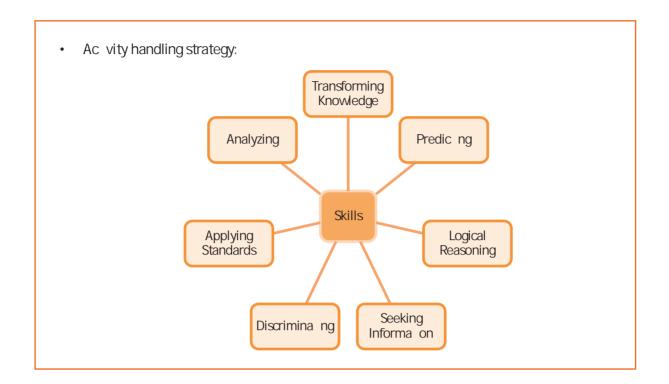
Arrive on me for work and show Behave in a respec ul manner with others work

Maintain yourself and keep the tools in a clean and organized condi on

Never indulge in nega ve or irrelevant talk

Alway be eager to learn new things

Fig 6.25: Norms of workplace e que e



UNIT 6.3: Interact with Supervisor

Unit Objec ves

At the end of this unit, students will be able to:

- Iden fy work requirements
- Describe the right work ethics
- · Iden fy the right way to interact with supervisor
- Use customer feedback

Ask



- Ask the par cipants if they can suggest steps that can be taken for work process improvement.
- · Ask the par cipants if they can define formal and informal processes.
- Ask the par cipants if they have experienced any major changes in an exis ng process.

Explain

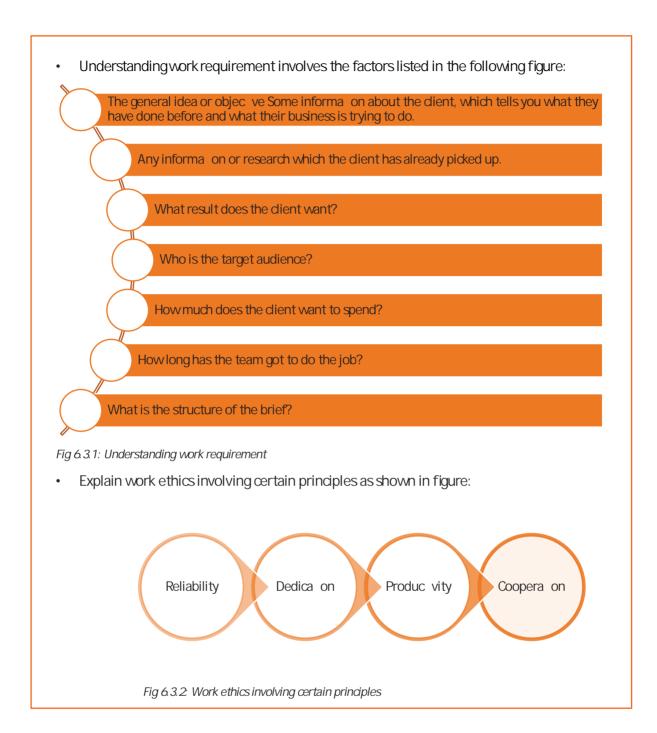


- Explain to the par cipants that all work processes are designed in a way that they streamline work.
- Explain what work ethics means.
- Explain issues to be informed to the supervisor.
- Explain guidelines to resolve issues and maintaining health and safety.

Notes for Facilita on



- Tell the par cipants about which work requirements need to be understood:
 - o Follow the line of authority.
 - o Follow the rou ne and par cipate in events, whenever it is needed.
 - o Understand the repor ng structure.
 - o Follow the inst u on's code of conduct. An inst u on's code of conduct is a writen set of rules and regula ons for all the employees who need to follow it. These rules are made to protect the organiza on's business and at the same me no fies the employees as to what is expected of them.
 - o Keep up to date with new developments. An employee is expected to stay well informed about all the relevant happenings in the organiza on.



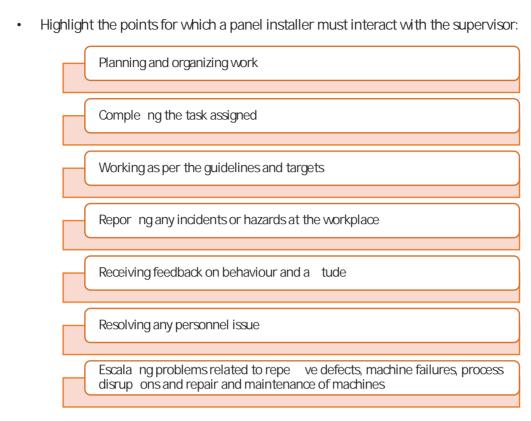


Fig 6.3.3: Points for which a panel installer must interact with the supervisor

- Explain to the par cipants about the core concepts which are involved in achieving targets.
- Discuss with the par cipants about performance indicators.
- Explain how it sets performance standards and assesses overall success of an organiza on. KPI's, as it is commonly known, are meaningful and measurable.
- Explain what is success?
- Answer by explaining that success is the progress a person makes towards opera onal or strategic goals like profit margins, customer sa sfac on level or zero defect.
- Make them understand by saying that, in order to succeed, an employee needs to achieve set targets which must be simple and clear to understand.
- Explain that in case of any conflicts or queries, the ma er should be resolved by communica ng with the concerned people.
- Discuss with the par cipants about goal seing.
- Explain how it is important that the goals set for people to achieve must be clear and concise to meet performance standards.
- Discuss with the par cipants about mo va on and how can people self-mo vate themselves.
- Tell the par cipants that if there is no mo va on, the e ciency and produc vity of an employee will never come out.
- Tell the par cipants about formal and informal business processes.

• Brief the par cipants that formal processes are the important procedures or s pulated steps that need to be followed related to the following reasons:



Fig 6.3.4: Steps to be followed in formal process

- Give the par cipants an example of fire safety drill or fire emergency procedure under formal processes.
- Brief the par cipants that informal processes are the ones which a person creates but may not have the steps wri en.
- Give the par cipants an example of carrying out a product research or an in-depth communica on with users to understand issues under informal processes.
- Explain to the par cipants that all work processes are designed in a way that they streamline work.
- Describes the types of evalua on done for a project foram ve, summa ve and confirma ve.
- Tell the par cipants about the problems that may arise as shown in the following figure:

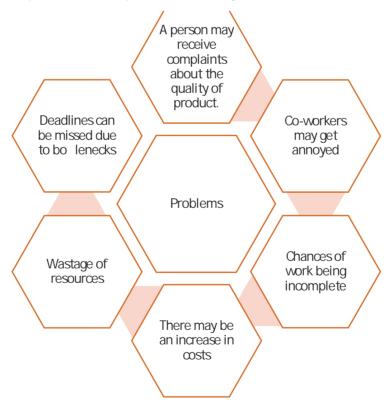


Fig 6.3.4: Problems that may arise in installa on

 Explain to the par cipants about the steps for upda ng and reviewing a par cular process.

- Discuss the steps as follows:
 - Explain the first step of mapping the process. It is essen all to explore a phase in detail because there are chances of some processes having sub steps that a person might not be aware of. One must consult people using the process regularly so that no point is missed.
 - Discuss the second step of analysing a process, where a person will have to consider a few gues ons:
 - ^a If the people working with you are frustrated?
 - ^a What are the steps crea ng a bo leneck?
 - ^a What are the factors behind the costs going up/down?
 - ^a Which steps require lengthy me and are a cause of delay?
 - o Tell the par cipants about the third step of redesigning a par cular process. This process is about elimina in gall the issues that a person identified in the previous step. The best strategy is to work with people who are involved and working in the process directly. Such people accept changes easily, especially if they have been in the process from an early stage.
 - Explain the fourth step of acquiring resources, which involves changing systems or processes which are in place already.
 - o Discuss the finh step of implementa on of a new process and communica on related to it. Management and planning of the new process is important as rolling it out can be a cumbersome task.
 - o Tell the par cipants about the last step of reviewing a process. This step includes tes ng the process over weeks and months and further, fixing any issues as they come up.
- Explain that collec ng feedback from the customers regularly will enable improvement in the goods/services.

Explain to them about the features of customer service standards with the help of the following figure:

Timeliness

- With the fastening-up of the e-commerce world, the expecta on level of the customers from the organisa on has also risen.
- Customers want that the services o ered from any organisa on should take minimum amount of me possible.

Accuracy

- Accuracy in all the services extremely improve the overall customer's experience.
- If an organisa on has successfully managed accuracy, then it will result in a happy customer who will hopefully become a long- me advocate for the organisa on.

Appropriateness

- Appropriateness refers to how well the customer's expecta ons are met.
- The technician needs to ensure that the best possible solu on is selected to resolve an issue.

Measurability

- To be e ec ve, the standards need to be measurable.
- In addi on to se ng standards, guidelines should be created for monitoring them and the results should be analysed.
- The technician should use these guidelines to pinpoint problem areas and consistently maintain the service standards.

Fig 6.3.5: Features of customer service standards

- Tell them that a technician should get in touch with the higher management if the raised concerns are not being addressed. There can be unnecessary bo lenecks created by supervisors and such behavioural anomalies can hamper the produc vity of a facility.
- Next, tell them that it is important to understand that all the possible hazards that can happen in a facility are the responsibilies of a technician.
- Explain that one possible cause of a hazard could be the lack of clear understanding about the company's code of conduct or reference handbook.

Tell them about the steps required to be taken to report any hazard to a superior as shown in the following figure: If the employee is injured, the An employee who encounters a concerned superior should ensure near miss or an accident should that the injured is rendered first report the incident to the superior aid and sent to a clinic/hospital immediately. for treatment, if necessary. The superior should immediately If the employee is amputated, inform the human resources his/her bleeding should be department. Then, conduct an controlled at once. Then an inves ga on of the accident by ambulance should be called at Tel: interviewing the injured and/or 102. witness (es). The concerned department has to implement the preven ve The accident sta s cs chart measures accordingly. Opera on should be updated II the last or machine involved may need to accident occurrence. be suspended/stopped if the situa on warrants. Fig 6.3.6: Steps required to be taken to report any hazard to superior Tell the par cipants about the types of risks - risk that is not yours to take, risk that is unnecessary, risk that you can a ord to take, risk that you cannot a ord to take and risk that you can't a ord not to take. Workplace e que e includes the norms as shown in the following figure: Arrive on me for work and show posi ve enthusiasm at work Behave in a respec ul manner with others Maintain yourself and keep the tools in a clean and organized condion Never indulge in nega ve or irrelevant talk Alway be eager to learn new things Fig 6.3.7: Workplace e que e norms

- Brief the par cipants about a few of the good prac ces classified under di erent aspects of grooming:
 - o Understand what's appropriate in your industry.
 - o Make sure your dothes fit.
 - o Pay a en on to your bag.
 - o Wear well-kept, polished shoes.
 - Avoid facial hair.
 - o Clothes should be neat and dean.
 - o Clothes should be ironed.
 - o If a company has a uniform, it should be worn
 - o Body odor and swea ng should be taken care of.
- Ac vity handling strategy: List a few steps taken by you related to personal grooming before you leave for work.
 - 1. Clothes should be neat and dean.
 - 2. Clothes should be ironed.
 - 3. Nails and hair should be cut.
 - 4. Teeth should be dean.
 - 5. Body odor and swea ng should be taken care of.

UNIT 6.4: Coordina on with Colleagues

Unit Objec ves

At the end of this unit, students will be able to:

- Define the role of team members
- Iden fy the correct way to interact with colleagues
- Iden fy work place rela onships

Ask (ask)



- Ask the par cipants how can members in team work e ec vely.
- Ask them if they can tell what interpersonal rela onships are about.
- Ask them if they interacted with the spare parts center.
- Ask them if they can recall any point from the checklist.

Notes for Facilita on



- Explain to the par cipants that a technician should be able to work in harmony with the colleagues or members in a team. In case of any conflict, the ma er should be resolved by communica ng with them. If the need for an interven on by a senior is felt, then the ma er should be reported to the supervisor.
- Draw the following figure on the black/white board which represents the key points to consider while interac ng with colleagues:



Fig 6.4.1: Key points to consider while interac ng with colleagues

Tell them that ge ng the job done in a process depends on informa on communica on. Furthermore, the accuracy of the end result en rely depends on e ec ve inter-personnel communica on.

• Further, tell them that to maintain a healthy interpersonal rela onship, it is important to adhere to the points shown in the following figure:

Resolve interpersonal conflict and ensure smooth flow of work

Pass on customer complaints to colleagues in respec ve geographical loca ons

Assist colleagues to resolve field problems

Fig 6.4.2: Points to maintain a healthy interpersonal rela onship

- Tell them that while doing work and any interac on related to work the interest of the organiza on should be the focus.
- Tell that all the members may work together or may work on individual projects to fulfil the organiza onal goals.
- Inform them that it is important to understand the role and responsibility of each one of the team members and the task being performed by that person.
- Explain that teamwork is defined as coming together of people to achieve a common goal. The goal here are the organiza onal goals. The daily tasks which are assigned are a part of the organiza onal goals. Team work means that each member in the team is contribung their bit to the overall tasks.
- Next, explain to them about cross func onal interac on by saying that the success of an organiza onal plan depends on e ec veness of training, goal -oriented ac on planning and mo va on. However, another key element that deserves a special considera on is cross-func onal communica on. It is a method of understanding the importance of liaising and collabora ng with other key departments of an organiza on.
- Explain to them about team work with the help of the following points:

Teamwork is defined as coming together of people to achieve a common goal.

The goal here are the organiza onal goals.

The daily tasks which are assigned are a part of the organiza onal goals.

Fig 6.4.3: Team work

- Team work means that each member in the team is contribung their bit to the overall tasks.
- Tell that in a team, all the members are important and might be dependent on each other for work. Some mes, the members do the work individually. However, the Collec ve result is a team e ort, similar to what will be seen in a game of cricket, or

- during the construc on of a building or building an aircra. It is also important to understand that the work may depend on the comple on of the tasks. Therefore, for smooth progress of work, the tasks should be completed on me.
- Tell the par cipants that every organiza on has its own defined work processes to manage IT opera ons at its facility. For a technician, it is important to learn these work processes and follow them.
- · Explain the work processes briefly.
- Tell that it is also important to understand that the progress of work may depend on the comple on of the tasks. Therefore, for smooth progress of work, the tasks should be completed on me.
- Tell them that generally, most of the work processes are automated by IT support so ware systems while others need to be performed manually or physically.
- Explain that a technician should be aware of the common IT work processes of the organiza on he/she works in, to work e ciently.
- Tell the par cipants to consider a situa on where a customer complains that a computer lost network connec vity. There can be numerous explana ons for the problem such as:
 - o Defect in a physical component such as a cable break or a faulty router.
 - o A faulty configura on on the computer or a network device.
 - Loss of network connec vity to a network resource such as an email, which led the customer to assume that all network connec vity was lost.
- Tell that a successful technician uses crical thinking skills to isolate the real cause of the issue by formula ng ques ons, gathering informa on, and determining what is relevant.
- Tell the participants that when on a visit to a customer site, to ensure good service, the customer's requirement should be understood, and a solu on should be suggested.
- Explain to the par cipants about the company policies in terms of installa on and servicing of CCTV's which the technician should understand and follow.
- Tell them how it ensures that the company's service standards are always met.
- Brief them that the proper knowledge of these policies requires a technician to be aware of points as shown in the following figure:

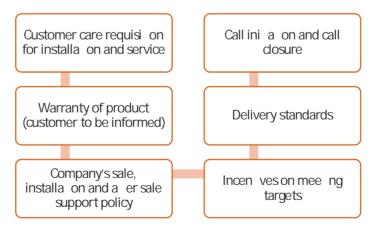


Fig 6.4.4: Required policies for a technician

- Ac vity handling strategy: Make four groups of the par cipants. Give the four topics to the groups for discussion, one to each for the discussion.
 - o Group 1 Policy Framework:

Customer care requisi on for installa on and service.

Warranty of product (customer to be informed).

o Group 2 – Day in the life of a CCTV Technician:

Take the briefing of the task from the Supervisor.

Draw wiring connec ons as per the wiring diagram.

o Group 3 – Coordina on and communica on at mul ple levels:

Coordinate with the contractor, fellow technicians and the site engineer.

Consult with other stakeholders before planning an installa on.

o Group 4 - Managing interpersonal rela onship:

Resolve interpersonal conflict and ensure smooth flow of work.

Pass on customer complaints to colleagues in respec ve geographical loca ons.











7. Employability & Entrepreneurship Skills

Unit 7.1 - Personal Strengths & Value Systems

Unit 7.2 - Digital Literacy: A Recap

Unit 7.3 - Money Ma ers

Unit 7.4 - Preparing for Employment & Self-Employment

Unit 7.5 - Understanding Entrepreneurship

Unit 7.6 - Preparing to be an Entrepreneur





Introduc on: Employability and Entrepreneurship Skills

This Facilitator's guide includes various ac vi es which will help you as a facilitator to make the sessions par cipa ve and interac ve.

Ice breaker

• You can begin the module with the following ice breaker:

Five of Anything Ice Breaker Steps:

- Divide the par cipants into groups of four or five by having them number off. (You do this because people generally begin a mee ng by sit ng with the people they already know best.)
- Tell the newly formed groups that their assignment is to share their five favorite movies of all
 me, their five favorite novels or their five least liked films. The topic can be five of anythingmost liked or disliked.
- This ice breaker helps the group explore shared interests more broadly and sparks lots of discussion about why each person likes or dislikes their selected five.
- Tell the groups that one person must take notes and be ready to share the highlights of their group discussion with the dass upon comple on of the assignment.

Expecta on Mapping

During the first session and after ice breaker session, ask the par cipants to answer the following ques on: "What do I expect to learn from this training?"

- 1. Have one of the par cipants write their contributions on a flip chart sheet.
- 2 Write down your own list of covered material in the training on another flip chart sheet.
- 3. Compare the two sheets, commen ng on what will and what will not be covered during the training.
- 4. Set some ground rules for the training sessions. Ask the par cipants to put these rules on a flipchart and displayit in the class.
- 5. You may get back to those sheets once again at the end of the last session of the training.
- 6. Benefitsofdoing this ac vity:
 - Par cipantsfeel better as their opinions are heard.
 - Par cipantsget to knowwhat they should expect from the training.
 - The facilitator gets to know which points to emphasize, which to leave out, and which to add during the training.
- 7. Expecta onsfrom the par cipants:
 - Must sign the attendance sheet when they arrive for class.
 - Conduct themselves in a posi ve manner
 - Be punctual, atten ve, and par cipa ve
- 8. Explain the contents that are going to get covered one by one and connect it with the expecta on mapping done earlier.
- 9. By the end of this exercise, the par cipants should have a dear understanding of what to

expect from the session and what are the areas that will not get covered.

DefiningObjec ves

- 1. Defining the objec ves in the beginning of the units sets the mood for the unit.
- 2. To begin with the end in mind sets the expecta ons of the par cipants as what could be the important takeaways from the session.
- 3. It is also a way of making par cipants take responsibility of their own learning process.
- 4. For the facilitator, the objec ves decide a designed path to progress on so that the learning stays aligned and on track.
- 5. Read the objec vesslowly, one by one, and ask the par cipants to explain what they think it means.
- 6. At the end of the session, you could again revisit the objec ves to find out from the par cipants about how many objec ves have been achieved.

In order to effec vely facilitate this workshop:

- 1. You must have thorough knowledge of the material in the Par cipant Handbook and be prepared to answer ques on sabout it.
- 2 You may also wish to read other material to enhance your knowledge of the subject.
- 3. There may be issues raised with which you are not able to deal, either because of lack of me or knowledge.
 - You can either state that you will obtain answers and get back to the par cipants with the informa on. In case the query can be turned to an assignment to the class, do so. You can work with the par cipants on the assignment.
- 4. You must have a very clear understanding of what the par cipants want to accomplish by the end of the workshop and the means to guide the par cipants.
- 5. As the facilitator, it is your responsibility to make sure that all logis cal arrangements are made for the workshop. This may involve doing it yourself or confirming that someone else has made all necessary arrangements associated with the workshop. Assume nothing and check everything before the workshop begins.
- 6. To break the monotony and boredom during sessions, introduce mini breaks in the form of stretching exercises, jokes, some group songs or games.
- 7. Invite discussion from the par cipants.
- 8. Probe the par cipants further and lead them to come to affirm a ve conclusions.
- 9. Let the par cipants answer. No answer is incorrect.
- 10. Ask one par cipant to write all the points on the whiteboard.
- 11. Build the sessions from the answers provided by the class.
- 12 Prepare for the sessions in advance so that the resources like flipcharts, handouts, blank sheets of paper, marker pens, etc. can be kept ready.
- 13. Ensure that resources like board, markers, duster etc. is available before your session starts. General instructions for role playing:
- 1. You are not being asked to be an actor or to entertain. The purpose of the role play is to

- provide a situa on in which you can prac ce certain skills.
- 2. When you read the brief, try to imagine yourself in the situa on described and behave in a way you feel to be natural but be conscious of the fact that your role may require a different approach from that which you might normally use.
- 3. You (and others) may be nefit from the change in approach and behavior. Therefore, try to use the approach you feel to be most appropriate for the circumstances described in your brief.
- 4. The brief is just the star ng point. It simply sets the scene and the tone of session or ac vity. Try not to keep referring to the brief as this will affect the spontaneity of the mee ng. Allow the role play to develop as you think it might in real life and change your reac ons in line with the behavior and responses of others involved.
- 5. If you find that you have too little informa on to answer ques ons or to describe what has happened in the situa on, do feel free to add your own thoughts and ideas. Try to keep these within the framework of the role you are taking and try to make your improvisa ons as realis caspossible.

UNIT 7.1: Personal Strengths & Value Systems

Key Learning Outcomes



At the end of this unit, par cipants will be able to:

- 1. Explain the meaning of health
- 2. List common health issues
- 3. Discuss ps to prevent common health issues
- 4. Explain the meaning of hygiene
- 5. Discuss the purpose of Swachh Bharat Abhiyan
- 6. Explain the meaning of habit
- 7. Discuss ways to set up a safe work environment
- 8. Discuss cri cal safety habits to be followed by employees
- 9. Explain the importance of self-analysis
- 10. Discuss mo va on with the help of Maslow's Hierarchy of Needs
- 11. Discuss the meaning of achievement mo va on
- 12 List the characteris cs of entrepreneurs with achievement mo va on
- 13. List the different factors that mo vate you
- 14. Discuss the role of at tude in self-analysis
- 15. Discuss how to maintain a posi ve at tude
- 16. List your strengths and weaknesses
- 17. Discuss the quali es of honest people
- 18. Describe the importance of honesty in entrepreneurs
- 19. Discuss the elements of a strong work ethic
- 20. Discuss how to foster a good work ethic
- 21. List the characteris cs of highly crea ve people
- 22 List the characteris as of highly innova ve people
- 23. Discuss the benefits of me management
- 24. List the traits of effec ve me managers
- 25. Describe effec ve me management technique
- 26. Discuss the importance of anger management
- 27. Describe anger management strategies
- 28. Discuss ps for anger management
- 29. Discuss the causes of stress
- 30. Discuss the symptoms of stress
- 31. Discuss ps for stress management

UNIT 7.1.1: Health, Habits, Hygiene: What is Health?

Unit Objec ves 6



At the end of this unit, the par cipants will be able to:

- Explain the meaning of health
- List common health issues
- Discuss ps to prevent common health issues
- Explain the meaning of hygiene
- Discuss the purpose of Swachh Bharat Abhiyan
- Explain the meaning of habit

Resources to be Used



Par cipant Handbook



- What do you understand by the term "Health?"
- According to you, who is a healthy person?



Discuss the meaning of health and a healthy person as given in the Par cipant Handbook.

$\mathsf{Ask}^{\left| \mathsf{ask} \right|}$



When did you visit the doctor last? Was it for you or for a family member?



- Discuss the common health issues like common cold, allergies etc. Refer to the Par cipant Handbook.
- Let us do a small ac vity. I will need some volunteers.

Role Play



- Conduct a small skit with volunteers from the class. Consider one of the villagers has been appointed as a health representa ve of the village, what measures will you as a health representa ve suggest to the common villagers to prevent common health issues discussed.
- You will need at least 4 volunteers (Narrator, Health Representa ve, Head of the Village,

Doctor).

- Explain the health concerns of the village to the Narrator. The Narrator will brief the class about the skit.
- Give the group of volunteers, 5 minutes to do discuss.
- At the end of 5 minutes, ask the group to present the skit to the class assuming them as the villagers.
- The class can ask gues ons to the group as a common villager.

Summarize



Through this ac vity we got some pson how we can prevent these common health issues.



Let us now see how many of these health standards we follow in our daily life.

Ac vitv



Health Standard Checklist from the Par cipant Handbook.

Ask ask



How many of you think that you are healthy? How many of you follow healthy habits?



- Let's do an exercise to find out how healthy you are.
- Open your Par cipant Handbook sec on 'Health, Habits, Hygiene: What is Health?', and read through the health standards given.
- Tick the points which you think are true for you.
- Try to be as honest as possible as this test is for your own learning.



- Ensure that all the par cipants have opened the right page in the Par cipant Handbook.
- Read aloud the points for the par cipants and explain if required.
- Give them 5 minutes to do the exercise.
- At the end of 5 minutes, ask the par cipants to check howmany ckshave they got.

Summarize



• Tell them that they need to follow all the ps given in this checklist regularly in order to remain healthy and fit.

Ask



- Is it necessary to prac ce personal hygiene every day? Why?
- How does a person feel when they do not prac ce good personal hygiene? Why?
- Can good personal hygiene help a person feel good about his/her self? How?

Say



• Discuss the meaning of hygiene as given in the Par cipant Handbook.

Ac vity



• Health Standard Checklist: Hygiene

Say



- Let's do an exercise to find out if we maintain good hygiene habits or not.
- Open the Par cipant Handbook and read through the Health Standard checklist given.
- Tick the points which you think are true for you.
- Try to be as honest as possible as this test is for your own learning.

Do



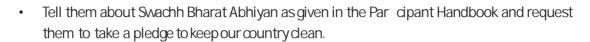
- Ensure that all the par cipants have opened the right page in the Par cipant Handbook.
- Read aloud the points for the par cipants and explain if required.
- Give them 5 minutes to do the exercise.
- At the end of 5 minutes, ask the par cipants to check how many cks have they got.
- Ask them to calculate their score.
- Tell them what each score indicates by reading aloud what has been men oned in the Par cipant Handbook.

Ask



How many of you have heard about "Swachh Bharat Abhiyan"? Can you tell the class what it is about?

Summarize 2



Ask ask

• What is a habit?





• Discuss some good habits which can become a way of life.

Summarize



• Tell them about good and bad habits and the reasons to make good habits a way of life.

UNIT 7.1.2: Safety

Unit Objec ves



At the end of this unit, par cipants will be able to:

- Discuss ways to set up a safe work environment
- Discuss cri cal safety habits to be followed by employees

Resources to be Used



- Par cipant Handbook
- Safety signs and symbols
- Safety equipment
- Blank papers
- Pens



- There are many common safety hazards present in most workplaces at one me or another. They include unsafe condi ons that can cause injury, illness and death.
- Safety Hazards include:
 - o Spills on floors or tripping hazards, such as blocked aisles or cords running across the floor. Working from heights, including ladders, sca olds, roofs, or any raised work area.
 - o Unguarded machinery and moving machinery parts; guards removed or moving parts that a worker can accidentally touch.
 - o Electrical hazards like cords, missing ground pins, improper wiring.
 - o Machinery-related hazards (lockout/tag out, boiler safety, forkli s, etc.)

Team Ac vity



Safety Hazards

- · There are two parts to this ac vity.
- First part will cover the poten al safety hazards at work place.
- Second part will cover a few safety signs, symbols and equipment at work place.
- Use this format for the first part of the ac vity.

PART 1					
Hazard	What could happen?	How could it be			

Ask (asl

How could you or your employees get hurt at work?

Say



• Let's understand it better with the help of an ac vity. You will be given a handout within your groups. You have to think about the possible hazards of your workplace, what damage these hazards could cause and about the corrective action.

Do



- Divide the dass into five to six groups of four par cipants each.
- Put the format on the board for the ac vity.
- Give blank papers and pens to each group.
- The group is expected to think and discuss the poten all safety hazards in the workplace.
- · Ask the group to discuss and fill the format using the blank sheet.
- Give the groups 5 minutes for the ac vity.
- For the second part of the ac vity, show the class some pictures of safety signs, symbols and equipments.
- Now they will put down a few safety symbols, signs or equipment against the safety hazards iden fied.
- Give them 5 to 10 minutes to discuss and draw/note it.
- At the end of 10 minutes the groups will present their answers to the dass.

Say



- Now, let's discuss the answers with the class.
- All the groups will briefly present their answers.

Do



- Ask the audience to applaud for the group presenta on.
- Ask de-brief gues ons to cull out the informa on from each group.
- Keep a check on me.
- Tell the group to wind up the discussion quickly if they go beyond the given melimit.

Ask ask

De-briefing

- What did you learn from the exercise?
- As an entrepreneur, is it important to ensure the safety of your employees from possible hazards? Why?

Summarize



- Ask the par cipants what they have learnt so far.
- Ask if they have any ques ons related to what they have talked about so far.
- Close the discussion by summarizing the ps to design a safe workplace and nonnego able employee safety habits.

UNIT 7.1.3: Self-Analysis- At tude, Achievement Mo va on: What is Self-Analysis?

Unit Objec ves 6



At the end of this unit, par cipants will be able to:

- Explain the importance of self- analysis
- Discuss mo va on with the help of Maslow's Hierarchy of Needs
- Discuss the meaning of achievement mo va on
- List the characteris cs of entrepreneurs with achievement mo va on
- List the di erent factors that mo vate you
- Discuss the role of a tude in self-analysis
- Discuss how to maintain a posi ve a tude.
- List your strengths and weaknesses

Resources to be Used



- Par cipant Handbook
- Old newspapers
- Blank papers
- Pencils/ pens

Ac vity



This is a paper pencil ac vity.

What are the three sentences that describe you the best?

What do you need to live happily?

What are your strengths and weaknesses?



- Write the three ques ons on the board/flipchart before the session begins.
- Give plain papers and pencils/pens to each par cipant.
- Tell par cipants to write the answer for the three ques ons on the paper.
- Tell them the purpose of this ac vity is not to judge anyone but to understand more about self.



· Discuss the concept of Self-Analysis and mo va on with reference to Maslow's Hierarchy of Needs as discussed in the Par cipant Handbook.

Team Ac vity



Towerbuilding

• Each group which will create tower using the old newspapers.



- Divide the dass into groups.
- Give them some old newspapers.
- The task is to create a tower out of the newspapers.
- The group which will create the highest tower standing on its own will be considered the winning group.
- Groups can use as many newspapers as they want to and in any way, they want.



- What did the winning group do di erently?
- If you were given a chance, how would you have made the tower dierently?
- How did you feel while making the tower?
- Did you feel mo vated?



• Discuss the concept of achievement mo va on and characteris as of entrepreneurs with achievement mo va on as discussed in the Par cipant Handbook.

Ask ask



Is your a tude posi ve or nega ve?



• Let me tell you a story:

It's Li le Things that Make a Big Di erence.

There was a man taking a morning walk at the beach. He saw that along with the morning de came hundreds of starfish and when the de receded, they were le behind and with the morning sun rays, they would die. The de was fresh, and the starfish were alive. The

man took a few steps, picked one and threw it into the water. He did that repeatedly. Right behind him there was another person who couldn't understand what this man was doing. He caught up with him and asked, "What are you doing? There are hundreds of starfish. How many can you help? What di erence does it make?" This man did not reply, took two more steps, picked up another one, threw it into the water, and said, "It makes a dierence to this one." What di erence are we making? Big or small, it does not ma er. If everyone made a small di erence, we'd end up with a big di erence, wouldn't we?

Ask ask



What did you learn from this story?

Ac vity



What Mo vates You?

- This is an individual ac vity.
- It is an exercise given in the Par cipant Handbook.



- · Ask the class to open their Par cipant Handbook and complete the exercise given in the sec on What Mo vates You?
- Ensure that the par cipants have opened the correct page for the ac vity.
- Give the class 5 minutes to complete the ac vity.



Discuss the concept of at tude and how to cul vate a posi ve at tude as discussed in the Par cipant Handbook.

Summarize



Close the discussion by summarizing how self-analysis, knowledge about what mo vates you and your posi ve at tude can help in your business as well in life.

UNIT 7.1.4: Honesty & Work Ethics

Unit Objec ves



At the end of this unit, par cipants will be able to:

- Discuss the quali es of honest people
- Describe the importance of honesty in entrepreneurs
- Discuss the elements of a strong work ethic
- Discuss how to foster a good work ethic

Resources to be Used



• Par cipant Handbook



- What do you understand by honesty?
- Why is it important for entrepreneurs to be honest?
- Do you remember any incident where your honesty helped you in gaining confidence?
- Do you remember any incident where someone lost business due to dishonesty?



- Discussed in the Par cipant Handbook.
- "Let's understand it be er with the help of some case scenarios. You will be given some cases within your groups. You have to analyse the case scenario that has been given to you and then find an appropriate solu on to the problem.
- Keep your discussion focussed around the following:
 - o What went wrong?
 - o Who was at fault?
 - o Whom did it impact- the customer or the businessman?
 - o How would it impact the business immediately? What would be the long-term impact?
 - What could be done?
 - o What did you learn from the exercise?



- Divide the class into four groups of maximum six par cipants depending on the batch size.
- Give one case study to each group.
- Instruct them to read the case carefully.

- Put down the de-brief gues ons on the board and ask the groups to focus their discussion around these gues ons.
- The group is expected to analyse and discuss the case amongst them and find a solu on to the given problem.
- Give the dass5-10 minutes to discuss the case and note down their solu ons.
- At the end of 10 minutes the team should present their case solu on to the class. The presenta on can be a narra on or a role play.
- Ask the group to select a group leader for their group. The group leader to discuss and assign roles to the group members for the presenta on.

Team Ac vity



Case Study Analysis

Scenario 1

Aakash has a small mobile retail sales and repair shop in Allahabad. He has one of the most popular outlets and has great rapport with his customers. It's around 11 AM when a customer barges in to the shop and starts shou ng at Aakash for giving her a faulty instrument. The screen of her mobile is cracked from one side. Aakash remembered thoroughly checking the handset before handing it over to the customer. The customer threatens to sue him and to go to Consumer Court for chea ng her. Now, the problem occurred somewhere outside the shop but as other customers were listening to the conversa on, it might impact his business. The situa on needs to be managed very sensi vely. What would you do if you were in Aakash's place?

Scenario 2

Rajni does beau ful Phulkari embroidery on suits and sarees. She has a small home-based business. She has a huge list of customers on Facebook and WhatsApp who give her orders regularly. Smita is one of her old and regular customers. As her sister-in-law's weddingwas around the corner, Smita wanted to buy few handcrafted Phulkari duppatta. She placed an order for three duppattas via WhatsApp and requested Rajni to send them as soon as possible. When the parcel reached Smita through courier she found that out of the three duppatas, only one was hand embroidered and the other two had machine embroidery on them. Even the length and the quality of the material was not as desired. Smita was heartbroken. It was a complete waste of money and moreover she couldn't wear what she had planned to during the wedding func ons. She sent a message to Rajni on WhatsApp, expressing her anger and disappointment.

Smita has also sent a feedback and expressed her disappointment on the social media... this will directly affect Rajni's business. What would you do if you were in Rajni's place?

Scenario 3

Shankar is a tattoo ar st who has a small tattoo showroom in a big, reputed mall in New Delhi. Mr Saksham had an appointment for today, at 11:00 am but he reached at 11:50 am. Meanwhile, Shankar had to reschedule his next appointment. After availing Shankar's services, Mr Saksham started yelling in an abusive language, refusing to pay the requisite amount, and finding faults in the services provided by him. Who was at fault in this case? What should Shankar do? Should he confront Saksham or give in to the demands of the client?

Scenario 4

Shailender is an online doth reseller who does business through social networking sites such as Facebook and WhatsApp. Priyanka made online payment for a dress to Shailander. But she did not receive the dress for a month. When she asked for a cancella on, Shailander started misleading her. For almost 45 days, he kept promising her that he will pay the amount today, tomorrow, day after etc. Even after repeated calls and messages when she did not receive the payment or the dress, she decided to write a post against him on a popular social media platform. As a result, Shailender lost lots of customers and his flourishing business faced a major crisis. Howcould this situa on have been managed?

Say



- Now, let's discuss the problem and solu on with the larger group.
- The group will first briefly describe the case to the dass.
- Then discuss the issue iden fied and the proposed solu on.
- Once the presenta on is over, the class can ask their ques ons.

Do



Congratulate each group for the group presenta on.

- Ask the audience to applaud for them.
- Ask de-brief gues ons to cull out the informa on from each group.
- Keep a check on me. Tell the group to wind up the discussion quickly if they go beyond the given me limit.

Summarize



- · Ask the par cipants what they have learnt from the exercise/ac vity.
- Ask if they have any gues ons related to what they have talked about so far.
- Close the discussion by summarizing the importance of honesty and work ethics for entrepreneurs.

UNIT 7.1.5: Crea vity and Innova on

Unit Objec ves 6



At the end of this unit, par cipants will be able to:

- List the characteris as of highly area ve people
- List the characteris cs of highly innova ve people

Resources to be Used



- Par cipant Handbook
- Chart papers
- Marker pens

Ask ask



- You must be aware of the term 'Rags to riches' and heard stories related to the term.
- What do these stories tell us?
- What was so special about these people?



- Let's have a look at these stories.
- There are some inspiring stories about people which I would like to share with you.
- Narrate these stories to the class.

A.P.J. Abdul Kalam

Who has not heard of A.P.J. Abdul Kalam: Avul Pakir Jainulabdeen Abdul Kalam hailed from a very humble background. His father was a boat owner. To help his family, Kalam would work as a newspaper vendor. With limited resources, he graduated in Physics and studied aerospace engineering. He was instrumental in India's step towards nuclear energy. In 2002, he became the 11th President of India.

Water filter/purifier at source

Two young boys studying in classes 4 and 5, from Lingzya Junior High School, Sikkim designed a simple innova velow-costwater purifier.

Inspira on behind the idea: Most people today prefer to use a water filter/purifier at their home. Both the children have given idea to have filter/purifier at the source of water so that everyone has access to clean water without having to make an investment in purchasing a filter/purifier. Soring's idea is to have a centralized purifica on system at the point of distribu on like water tank while Subash's idea is to have such purifiers attached to public taps.

Source: http://www.rediff.com/getahead/report/achievers-top-31-amazing-innova onsfrom-young-Indians/20151208.htm

Solar seeder

This is a story of a innova ve solar seeder and developed by Subash Chandra Bose, a class 8, student from St Sebasthiyar Matricula on School, Pudukko ai, Tamil Nadu. Subash has developed a solar powered seed drill, which can undertake planta on for different size of seeds at variable depth and space between two seeds.

Source: http://www.rediff.com/getahead/report/achievers-top-31-amazing-innova onsfrom-young-Indians/20151208.htm

Loomsfor physically challenged

Now this is really inspiring of two sisters, Elakkiya a Class 6 student and Pavithra a Class 9 student of SRC Memorial Matricula on, Erode, Tamil Nadu.

The two sisters have come up with loom for lower limbed physically challenged. In their loom, they have replaced the pedal operated system with a motor and a gearbox attached to a pulley mechanism.

Source: http://www.rediff.com/getahead/report/achievers-top-31-amazing-innova onsfrom-young-Indians/20151208.htm

Ask ask



- If they can, why can't you?
- Discuss concepts related to 'Crea vity and Innova on' with the par cipants as given in the Par cipant Handbook.



- Recall the stories on mo va on.
- What is the inner drive that mo vates people to succeed?
- Let's learn more about such crea ve and innova ve entrepreneurs with the help of an ac vity.

Team Ac vity



- Thisisa group ac vity.
- Think of any one famous entrepreneur and write a fewlines about him or her.

- Why did you choose this par cular entrepreneur?
- What is his/her brand name?
- What crea vity does he/she possess?
- What wasinnova ve about their ideas?

Do 🗸

- Instruct the par cipants that this is group work.
- Divide the dass into small groups of 4 or 6 depending on the batch size.
- Give each group a chart paper.
- Tell the par cipants they have to write a few lines about any one famous entrepreneur.
- · Give the par cipants 10 minutes to discuss and write.
- Keep a check on me. Tell the group to wind up quickly if they go beyond the given me limit.
- · Ask each group to read out what they have wri en.
- Ask the de-briefques ons.

Summarize



- Summarize the unit by asking par cipants if they know of some people who are highly crea ve and innova ve in their approach.
- Ask them to share some experiences about these people with the class.

Notes for Facilita on



• Source for stories on innova ons:

http://www.rediff.com/getahead/report/achievers-top-31-amazing-innovations-from-young-Indians/20151208.htm

UNIT 7.1.6: Time Management

Unit Objec ves



- Discuss the benefits of me management
- List the traits of e ec ve me managers
- Describe e ec ve me management techniques

Resources to be Used



Par cipant Handbook



Does this sound like you?

- I can never get enough me to finish what I am doing in a day.
- I have so many things to do that I get confused.
- I want to go for a walk and exercise, but I just do not have the me.
- I had so much to do, so I could not deliver that order on me.
- I would love to start my dream business; but, I just do not have the me.

Example 🔽



Let's look at these two examples:

Example 1:

Ankita works from home as a freelance writer. She says she can easily put in 8 hours of dedicated work in a day. Because she works from home, she saves money on travel and has a comfortable work rou ne. But there is a challenge and it is distrac on. As she works from home, she can easily just get up and sit down on the sofa to watch TV, was ng valuable me. She may have chores to do, errands to run and bills to pay. She ends up working only two to three hours a day and the result is, her work gets piled up. She is unable to take on more work due to this. Even though her quality of work is appreciated her dients are not very happy about the delay in submission.

Example 2:

Javed has started a successful online selling company from home and makes a good living from his sales. He has set up a small office space in his living room. As both his parents are working fullme, he also has the role of taking care of his two younger siblings. He almost spends half of his day with the younger kids. He does not mind it but it means taking me away from the work. He is s II able to manage his online business with these commitments. He wants to spend some more dedicated hours so as to increase his profits. He also wants to look into new business avenues. What should he be doing.

- Does this happen with you too?
- Do you find it di cult to priori ze your work?
- Are you able to manage your mee ec vely?

Ac vity



- Conduct a group discussion based on the above examples.
- Direct the discussion on how to priorize work and manage meeffec vely.



- Time management is not only about how hard you work but also about how smart you
- Discuss "What is Time Management" with the par cipants as given in the Par cipant Handbook.

Ask ask



- Why is it important to manage me? How does it help?
- What happens when you don't manage your mee ec vely?
- Do you find it di cult to priori ze your work?



- Discuss the benefits of me management given in the Par cipant Handbook.
- Let's learn e ec ve me management with the help of an ac vity.

Ac vity



Effec ve Time Management

Thisac vityhastwo parts:

Part 1 To Do List

- You have to make a to-do list.
- List all of the ac vi es/ tasks that you have to do.
- Try to include everything that takes up your me, however unimportant it may be.
- If they are large tasks, break them into ac on steps, and write this down with the larger task.
- You can make one list for all your tasks or have separate to -do lists for personal and professional tasks.

PART 2 URGENT-IMPORTANT GRID

- You have to make a grid as shown on the board here.
- This grid has four boxes. As you can see, each box has a di erent heading.
- At the heart of the urgent-important grid, are these two ques ons:
 - o Is this task important?
 - o Is this task urgent?
- Now, you have to think about each ac vity that you have written in your to-do list and put it into one of the four categories.
- What do these categories depict?
- Category 1: Urgent/Important
 - o This category is for the highest priority tasks. They need to get done now.
- Category 2: Not Urgent/Important
 - o This is where you want to spend most of your me.
 - o This category allows you to work on something important and have the me to do it properly.
 - o This will help you produce high quality work in an e dient manner.
 - o The tasks in this category are probably the most neglected ones, but also the most crucial ones for success.
 - o The tasks in this category can include strategic thinking, deciding on goals or general direc on and planning all vital parts of running a successful business.
- Category 3: Urgent/NotImportant
 - o This is where you are busy but not produc ve. These tasks are o en mistaken to be important, when they're most o en busywork.
 - o Urgent but not important tasks are things that prevent you from achieving your goals.
 - o However, some may be ac vi es that other people want you to do.
- Category 4: Not Important and Not Urgent
 - o This category doesn't really include tasks, but rather habits that provide comfort, and a refuge from being disciplined and rigorous with your me management.
 - o Some may be ac vi es that other people want you to do.
 - o These might include unplanned leisure ac vi es as well.

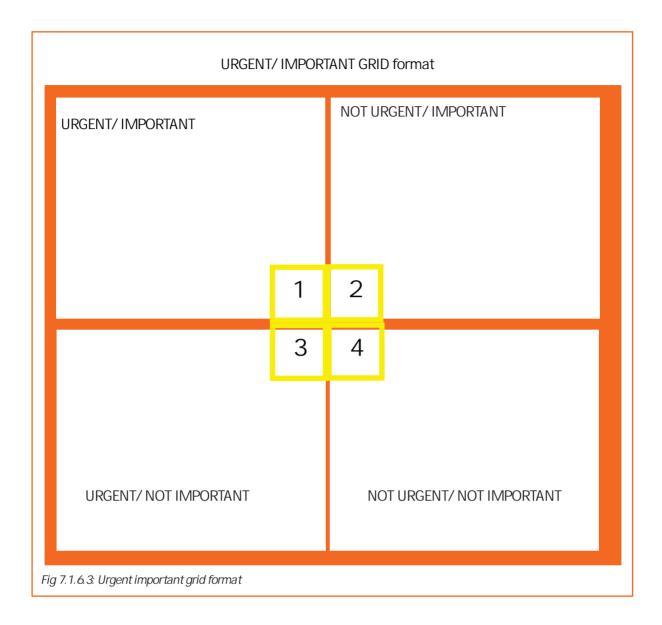
To - Do List Format

1	
3	
4	
5	
6	

7				
8				
9				
10.				
11.				
12.				
13.				
14.				
15.				
Fig 7.1.6.1: To-do-list format				
URGENT-IMPORTANT GRID				
		T		
URGENT/ IMPORTANT		NOT URGENT/IMPORTANT		
Mee ngs		PlanningWorking towards goals		
Last minute demandsProject deadlines		Building rela onship		
• Crisis		Personal commitments		
	4			
	1	2		
Interrup ons	3	4 • Internet surfing		
Phone calls/ E-mails Other people's miner demand		Social media Watching TV		
Other people's minor demands		Watching TV		
URGENT/ NOT IMPORTANT		NOT URGENT/ NOT IMPORTANT		

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Fig 7.1.6.2: Urgent important grid



Do 🗸

- Put down the formats for the to-do list and the urgent/important grid on the board.
- Instruct the par cipants to prepare their to-do list first.
- Give the par cipants 10 minutes to prepare the list.
- Once done, instruct them to divide the tasks in to-do list into the four categories.
- Explain the four categories to the par cipants giving examples specific to their context.
- As you explain the categories fill the grid with the type of tasks.
- · Give the par cipants 40 minutes to fill the grid.
- Then explain how to balance the tasks between the four categories.
- Keep a check on me. Tell the group to wind up quickly if they go beyond the given me limit.





Ac vity De-brief:

How can we balance tasks between the four categories? How to manage me through this grid?

- Category 1: Urgent/Important
 - o Try to keep as few tasks as possible here, with the aim to eliminate.
 - o If you spend too much of your me in this category, you are working solely as a trouble shooter, and never finding me to work on longer-term plans.
- Category 2: Not Urgent/Important
 - o Plan these tasks carefully and e ciently as they are most crucial ones for success.
 - o If necessary, also plan where you will do these tasks, so that you're free from interrup ons.
 - o Include strategic thinking, deciding on goals or general direction and planning in your planning process.
- Category 3: Urgent/NotImportant
 - o Ask yourself whether you can reschedule or delegate them.
 - o A common source of such ac vi es is other people. Some mes it's appropriate to say "no" to people politely, or to encourage them to solve the problem themselves.
- Category 4: Not Important and Not Urgent
 - o You also want to minimize the tasks that you have in this category.
 - o These ac vi es are just a distrac on avoid them if possible.
 - o You can simply ignore or cancel many of them.
 - Politely say "no" to work assigned by others, if you can, and explain why you cannot do it.
 - o Schedule your leisure ac vi es carefully so that they don't have an impact on other important tasks.
- Discuss the traits of effec ve me managers and effec ve me management techniques as given in the Par cipant Handbook.

Summarize



• Discuss the traits of effec ve me managers and effec ve me management techniques as given in the Par cipant Handbook.

Notes for Facilita on



- Here is a short story. You can conclude the session narraing the story. To make it more
 interesing you can perform the demonstraion described and discuss the short story.
 - o One day an expert in me management was speaking to a group of students. As he stood in front of the group, he pulled out a large wide-mouthed glass jar and set it on the table in front of him. Then he took out a bag of about a dozen rocks and placed them, one at a me, into the jar. When the jar was filled to the top and no more rocks would fit inside, he asked, "Is this jar full?" Everyone in the class said, "Yes." Then he said, "Really?"
 - o He reached under the table and pulled out a bucket of gravel (small stones). He dumped some gravel in and shook the jar causing pieces of gravel to work themselves down into the space between the rocks. Then he asked the group once more, "Is the jar full?" By this me, the class began to understand. "Probably not," one of them answered. "Good!" he replied.
 - o He reached under the table and brought out a bucket of sand. He started dumping the sand in the jar and it went into all of the spaces le between the rocks and the gravel. Once more he asked the ques on, "Is this jar full?" No!" the class shouted. Once again he said, "Good." Then he grabbed a jug of water and began to pour it in un I the jar was filled to the brim. Then he looked at the dass and asked, "What is the point of this illustra on? "One student raised his hand and said, "No ma er how full your schedule is, if you try really hard you can always fit some more things in it!" "No," the speaker replied, "that's not the point. The truth this illustra on teaches us is If you don't put the big rocks in first, you'll never get them in at all." What are the 'big rocks' in your life? Your children; your loved ones; your educa on; your dreams; a worthy cause; teaching or mentoring others; doing things that you love; me for yourself; your health; your mate (or significant other). Remember to put these BIG ROCKS in first or you'll never get them in at all. If you sweat about the lille stu (the gravel, sand, and water) then you'll fill your life with li le things you worry about that don't really ma er, and you'll never have the me you need to spend on the big, important stu (the big rocks).
- End the story with these lines...
 - So, tonight, or in the morning tomorrow, when you are reflec ng on this short story, ask yourself this ques on: What are the 'big rocks' in my life? Then, put those in your jar first.

UNIT 7.1.7: Anger Management

Unit Objec ves 6



At the end of this unit, par cipants will be able to:

- Discuss the importance of anger management
- Describe anger management strategies
- Discuss ps for anger management

Resources to be Used



Par cipant Handbook



- What is anger? Is anger good or bad?
- Is anger normal or an abnormal behaviour? How can anger harm you?
- Why is it important for entrepreneurs to manage their anger?



- Talk about anger and the importance of anger management in entrepreneurs as discussed in the Par cipant Handbook.
- Letusdo a small ac vity. This is an individual ac vity.
- Think of the incidents and situa on sthat angered you and hurt you.



- Instruct them to note down these situa ons under di erent categories (as given in the Ac vity).
- Give the dass 3-5 minutes to think and note down their answers.
- At the end of 5 minutes, ask some par cipants to volunteer and present their answers.
- They can also share these situa ons with their fellow par cipants if they do not wish to share it with the en re dass.

Ac vity



- Do you remember any incident which hashurt?
 - o you physically
 - o you mentally
 - o your career
 - your rela onships.

Ask



- Do you ever get angry?
- What are the things that make you angry?
- Do you remember any incident where your anger management helped you in maintaining healthy rela onship?
- Do you remember any incident where someone lost business/friend/rela onship due to temper (anger)?

Say



- There are a few strategies which can help in controlling your anger. Let's do an ac vity to understand the anger management process be er.
- This is an individual ac vity.
- Think of the incidents/situa ons which trigger your anger (the cause).
- Then think what happened as a result of your anger (the e ect).
- You need to come up with some techniques to manage your anger.

Do



- Give the class the anger triggers (the cause) as listed in the ac vity.
- Put down the ac vity format (Anger Triggers, Result of your Anger, Anger Management Techniques) on the board and instruct the class to write the answers under di erent categories.
- Give the dass 3-5 minutes to think and note down their answers.
- At the end of 5 minutes, ask the par cipants who wish to volunteer and present their answers.

Ac vity



Trigger points and Anger Management Techniques Ac vity

Anger Triggers

List of triggers that make you angry:

Someone says you did something wrong.

You want something you can't have now.

You get caught doing something you shouldn't have been doing.

You are accused of doing something you didn't do.

You are told that you can't do something.

Someone doesn't agree with you. Someone doesn't do what you tell him to do. Someone unexpected happens that messes up your schedule. Result of your anger: Write the techniques that you use to manage your anger: Anger Management Techniques





- Now, let's discuss the problems and solu on with all.
- The individual will first briefly describe trigger points to the class.
- Then discuss the result of the anger. Other par cipants are requested to remain quiet while one is making the presenta on.
- Post presenta on, other par cipants may ask ques ons.

Do



- Congratulate each individual for sharing their points.
- Ask the audience to applaud for them.
- Ask de-brief ques ons a er the presenta on to the class.
- Keep a check on the me. Ask the par cipants to wind up the ac vity quickly if they go beyond the given me limit.

De-briefques ons:

- In the situa on described by the presenter, who was at fault?
- How could you have handled this situa on alterna vely?

Summarize



- Close the discussion by summarizing the strategies and ps of anger management for entrepreneurs.
- Ask the par cipants what they have learnt from this exercise/ac vity.
- Ask if they have any ques on srelated to what they have talked about so far.

Notes for Facilita on



Encourage the par cipants to share informa on about them while presen ng the situa ons to the dass.

Keep the format of the Ac vity prepared in a chart paper so that it can be displayed during the session.

UNIT 7.1.8: Stress Management: What is stress?

Unit Objec ves 6



At the end of this unit, par cipants will be able to:

- Discuss the causes of stress
- Discuss the symptoms of stress
- Discuss ps for stress management

Resources to be Used



Par cipant Handbook



- You are wai ng in the recep on for an interview or a very important mee ng, suddenly your legs are shaky, your hands are cold, you are feeling nervous. Have you ever been in this kind of situa on?
- Have you had days when you had trouble sleeping?
- Have you ever been so worried about something that you ended up with a terrible headache?



You've probably heard people say, I'm really stressed out" or "This is making me totally stressed."



- What do you understand by stress?
- What gives you stress?
- How do you feel when you are stressed or what are the symptoms of stress?
- How can stress harm you?
- Why is it important for entrepreneurs to manage stress?



- When we feel overloaded or unsure of our ability to deal with certain challenges, we feel stressed.
- Discuss about stress, causes of stress, and symptoms of stress as discussed in the Par cipant Handbook.
- Let's understand the causes of stress and how to deal with them with the help of some case scenarios.

- You will be given some cases.
- You have to analyse the case scenario and then find an appropriate solu on to the problem.
- This will be a group ac vity.

$D_0 \lor$



- Divide the dass into four groups of 5-6 par cipants (depending on the batch size).
- Assign one case scenario to each group.
- Instruct them to read the case carefully.
- The group is expected to analyse and discuss the case amongst them and find a solu on to the given problem.
- Explain their discussion should result in get nganswers for the following gues ons:
 - o What was/were the cause(s) of stress?
 - o Was the stress avoidable or manageable under the given circumstances?
 - o If yes, howdo you think that the stress could be avoided (managed)?
 - o Ifno, then why not?
- Give the dass 10-12 minutes to discuss the case and note down their solu ons.
- At the end of 12 minutes, the team should present their case solu on to the larger group.
- Ask the group to select a group leader for their group.
- The group leader to discuss and assign roles to the group members for the presenta on.

Team Ac vity



Case Study Analysis

Scenario 1

Akash's alarm doesn't go o and he gets late ge ng out of the house. He hits tra cand ends up 15 minutes late to work, which his boss no ces. He gets to his desk and finds he has to complete 2 reports in next one hour. Just when he is about to begin work, a message pops up "Telecon with the dient begins in 10 minutes. Please be in the conference room in 5 minutes." He is not prepared for the call. He is stressed. He does not want to speak to his boss about this. He is stressed, feeling uncomfortable and sick. Not in a posi on to a end the call or finish the reports on me.

Scenario 2

While paying his overdue bills, Rahul realised that it's the middle of the month and he has only Rs 500 le in his account. He has already asked all of his friends, and family for loans, which he hasn't paid back yet. He is s Il contempla ng over the issue when his phone rings. His sister's birthday is due next week and she has seen a beau ful dresswhich she wants to buy but cannot tell the parents as it is a bit expensive. She wishes if Rahul could buy the dress for her. Rahul has promised to buy her the dress for her birthday.

Rahul is stressed, does not understand what to do. He is unable to concentrate on his work and unable to complete the tasks assigned. His team leader has already warned him of the delay.

Scenario 3

Sheela calls the cable company as she has unknown charges on her bill. She has to go through the automated voice mail menu three mes and s II can't get through to a customer care execu ve. After 15 minutes of repeated efforts, her call is answered. She explains the en re issue to the customer care execu ve but before the person could suggest a way out, the call drops.

Now Sheela has to call back and repeat the whole process all over again with a new customer care execu ve. She is very angry and calls again but cannot connect this me.

She has to leave to office so she decides to call from office and check. When she connects this me, she is angry and argues with the execu ve on the call. All her co-workers around are looking at her as her volume has suddenly increased. She bangs the phone and ends the call. Her co-worker Neelam enquires what has happened to her. She ignores her and just walks off. She has become irritable and her behaviour and tone with other co-workers is not acceptable.

Scenario 4

Arpit is a young entrepreneur who started doing business through Facebook few weeks back. He had always been into a job. Although Arpit has very few financial liabili es, it wasn't an easy decision to leave a comfortable job at once and look for newer pastures. Arpit's boss warned him of the consequences and the challenges of star ng a business when nobody ever in his family had been in business.

He has not been able to get a good deal II now. This is an important life shi for him which comes with unknown variables. Arpit is nervous and is wondering if he has what it takes to fulfill the requirement of his new role, or the new experiences he's likely to face.

Ask ask



De-briefques ons:

- What was/ were the cause(s) of stress?
- Was the stress avoidable or manageable under the given droumstances?
- If yes, how do you think that the stress could be avoided (managed)?
- If no, then why not?





- Now, let's discuss the problem and solu on with the larger group.
- The group will first briefly describe the case to the class.

- Then discuss the issue iden fied and the proposed solu on.
- Post presenta on, the other groups may ask ques ons to the group that has presented.

Do



- · Congratulate each group for sharing their points.
- Ask the audience to applaud for them.
- Ask de-brief ques ons to cull out the informa on from each group.
- Keep a check on me. Tell par cipants to wind up the discussion quickly if they go beyond the given me limit.

Say



- While it is common and normal to feel some tension. This feeling nervous and tensed can interfere with your thinking process and can have a nega ve impact on your performance.
- Stress can deplete the most vibrant of souls. It can have a negative election every aspect of a person's life including their health, emotional well-being, relationships, and career. However, one needs to understand the causes and types of stress before looking for ways to manage it.

De-brief:

Scenario 1

The cause of stress was lack of me management and the habit of procras na ng. If Akash would have managed his me well, planned alternate ways to get up on me, finished prior tasks on me and planned for client mee ngsin advance then he wouldn't have faced stress.

Scenario 2

The cause of stress was lack of financial planning. Rahul should have planned his financial resources well in advance and saved some money for the rainy day. Also, di eren a ng between needs and wants and keeping a check on non-essen al expenditure would have saved Rahul from this situa on.

Scenario 3

Some mes, stress is caused due to external factors instead of internal ones. In this case, the stress was unavoidable because we have no control over this customer care system. Every me, you will get in touch with a new execu ve and will have to explain all over again. This might cause stress but despite being frustrated and angry there is li le that we can do about it. All Sheela could do was to find ways to calm herself down through some breathing exercises and medita on, reading some good book or listening to music and then start afresh.

Scenario 4

A posi ve, major life change can be a source of good stress. Regardless of howgood the change is, it can be stressful. Stress caused by a posi ve and major life change can be beneficial because it causes a person to step out of their comfort zone and learn new skills. Here, Arpit may become a successful entrepreneur or learn newways to do things differently. Nowlet us see this scenario, can I have a volunteer to read out this case to the class

Do



Ask one of the par cipant who can volunteer and read out this scenario to the class.

Scenario 5

Rakesh lives in Kathmandu with his wife and two beau ful daughters Sarah and Sanya. Nepal was hit by a massive earthquake and Rakesh's building collapsed during the earthquake. During evacua on, Rakesh realised that though his wife and Sarah were fine and suffered only minor bruises, Sanya was nowhere in the scene. Panic stricken, he started calling her name and searching her fran cally. A little later, he heard a meek voice from beneath the debris. He quickly removed the rubble to find a huge bed. Rakesh was pretty sure that Sanya was trapped underneath. Though he was badly bruised, he gathered all his courage and with all his might, he lifted the several-ton bed to save Sanya's life. Everyone was relieved to see Sanya alive and also extremely surprised to see this father's ability to access superhuman strength.

- Ask the audience to applaud for the par cipant a er the scenario is read completely.
- Discuss the scenario, ask de-brief gues ons:
 - o What kind of stress was Rakesh undergoing in this case?
 - o Was the stress avoidable or manageable under the given circumstances?
 - o What was the result of the stress?

Say



De-brief:

 Not all stress is harmful; good stress is actually energizing. This was a case of lifesaving stress, or hero stress, which is an important example of good stress. You may have heard stories in which a person performs an impossible feat of physical strength in order to save their life or the life of someone they love. This type of stress causing a surge of adrenaline is good for us.

Summarize



- Close the discussion by summarizing the ps to manage stress as given in the Par cipant Handbook.
- · Ask the par cipants what they have learnt from this exercise/ac vity.
- Ask if they have any gues ons related to what they have talked about so far.

Notes for Facilita on



- Keep printed copies of the ac vi es/scenarios ready for the session.
- Put down the de-brief ques ons on a flip chart so that it can be displayed in the class during the ac vity.
- Encourage par cipa on and make the discussions interac ve.

UNIT 7.2: Digital Literacy: A Recap

Key Learning Outcomes 💆



At the end of this unit, par cipants will be able to:

- 1. Iden fy the basic parts of a computer
- 2 Iden fy the basic parts of a keyboard
- 3. Recall basic computer terminology
- 4. Recall the func ons of basic computer keys
- 5. Discuss the main applica ons of MSO ce
- 6. Discuss the benefits of Microso Outlook
- 7. Iden fy di erent types of e-commerce
- 8. List the benefits of e-commerce for retailers and customers
- 9. Discuss Digital India campaign will help boost e-commerce in India
- 10. Describe how you will sell a product or service on an e-commerce platform

UNIT 7.2.1: Computer and Internet Basics: Basic Parts of a Computer

Unit Objec ves 6



At the end of this unit, par cipants will be able to:

- Iden fy the basic parts of a computer
- Iden fy the basic parts of a keyboard
- Recall basic computer terminology
- Recall the func ons of basic computer keys

Resources to be Used



- Par cipant Handbook
- Computer Systems with the required applica ons



- Let's take a quick recap of the basic computer parts.
- Discuss 'Basic Parts of Computer' and 'Basic Parts of a Keyboard' with the class as given in the Par cipant Handbook.

Explain



Explain all the parts of the computer and the keyboard by demonstra ngon the real system.



- Do you know about internet?
- Have you ever used internet?
- Why do you think internet is useful?
- What was the last task you performed on internet?



- Let's look at some basic internet terms.
- Discuss' Basic Internet Terms' with the par cipants as given in the Par cipant Handbook.

Summarize 2



- Ask the par cipants what they have learnt from this exercise/ac vity.
- Ask if they have any ques ons related to what they have talked about so far.

 Close the discussion by summarizing the importance of computer and internet for entrepreneurs.

Prac cal



- Conduct a prac cal session.
- Ask the par cipants to assemble in the computer lab.
- Give some hands-on prac ce exercises.

Do



- Group the par cipants for the ac vity depending on the batch size and the number of computer systems available in the lab.
- Explain the purpose and dura on of the ac vity.
- Ensure the par cipants complete the prac cal exercises assigned.

UNIT 7.2.2: MS Office and Email: About MS Office

Unit Objec ve



At the end of this unit, par cipants will be able to:

- Discuss the main applica ons of MSO ce
- Discuss the benefits of Microso Outlook

Resources to be Used



- Par cipant Handbook
- Computer Systems with the required applica ons



- What is the most frequent ac vity that you do on the computer?
- Do you know how to make presenta ons on the computer?



- Give a briefintroduc on of MSO ce as given in the Par cipant Handbook.
- Discuss the most popular o ce products. Explain in brief their applica on, benefits and working.
- Microso Word is a word processing program that allows for the crea on of documents. The program is equipped with templates for quick forma ng. There are also features that allow you to add graphics, tables, etc.
- Microso Excel is a tool for accoun ng and managing large sets of data. It can also simplify analysing data. It is also used to create charts based from data, and perform complex calcula ons. A Cell is an individual data box which will have a corresponding Column and Row heading. This gives the cell a name, referred to as the Cell Reference. There can be mul ple pages in each workbook. Each page, or sheet, is called a Worksheet. When you open a new Excel file, it automa cally starts you with three worksheets, but you can add more.

Explain 🖺



Explain the working and frequently used features of Office on a real system.



- What do you know about e-mails?
- Do you have an email id?
- How o en do you check your e-mails?



- Communica on is vital for every business. The fastest and the safest way to communicate these days are through emails. MS Outlook helps to manage your emails in a be er way and also o ers a host of other benefits.
- Discuss "Why Choose Microso Outlook?" with the par dipants as given in the Par dipant Handbook.

Do



- Ask the par cipants to assemble in the computer lab.
- Explain the working of Outlook on a real system.

Demonstrate



- Demonstrate how to create email id.
- Demonstrate how to write new mails, send mails.
- Demonstrate how to use MSO ce applica on to create a le er and send it as a achment in an email.
- Demonstrate how to use other MSOffice applica ons.

Prac cal |



- Give some hands-on prac ce exercises
- Group the par cipants for the ac vity depending on the batch size and the number of computer systems available in the lab.
- Explain the purpose and dura on of the ac vity.

Summarize



- Ask the par cipants what they have learnt from this exercise/ac vity.
- **Askifthey have**

UNIT 7.2.3: E-Commerce

Unit Objec ve

At the end of this unit, par cipants will be able to:

- Iden fy di erent types of e-commerce
- List the benefits of e-commerce for retailers and customers
- Discuss Digital India campaign will help boost e-commerce in India
- Describe how you will sell a product or service on an e-commerce platform

Resources to be Used



- Computer Systems with internet connec on
- Par cipant Handbook



- How many of you have done shopping online?
- Can you name at least five shopping websites?
- What is the product that you most frequently buy online?
- Why do you do shopping online instead of going to the market?



- Give a brief introduc on of "What is E-commerce". Refer to the Par cipant Handbook.
- E-commerce emerged in the early 1990s, and its use has increased at a rapid rate. Today, many companies sell their products online. Everything from food, dothes, entertainment, furniture and many other items can be purchased online.



What other types of transac ons have you performed on the internet other than buying products?



Give examples of e-commerce ac vi es from Par cipant Handbook.

Team Ac vity



E-commerce examples

Instruct the par cipants to list some of the payment gateways that they have used for ecommerce ac vi es.

- Give them 5 minutes to make this list.
- Discuss payment gateways and transac on through payment gateways.
- Conclude the discussion by men oning how important e-commerce has become in our day to day transac ons.





- E-commerce ac vi es can be classified based on the types of par cipants in the transac on.
- Discuss "Types of E-commerce" from the Par cipant Handbook.

Do



- Discuss all types of E-commerce by giving examples and names of some popular websites which use them.
- Make the discussion interactive by asking the class to share some popular e-commerce sites of each type.

Say



- E-commerce ac vi es bring a host of benefits for both, retailers and customers.
- Discuss benefits of E-commerce from the Par cipant Handbook.

Explain



- The majority of the popula on that uses E-commerce ac vi es lives in er-1 and er-2 ci es. To encourage the use of digital money in er-3 and 4 areas, PM Mr. Modi launched the "Digital India Campaign".
- Discuss "Digital India Campaign" from the Par cipant Handbook.
- By Digital India project the government will deliver services via mobile connectivity and in
 doing so, is expected to bring the internet and broadband to remote corners of the
 country. This connectivity will in turn enhance e-commerce activities also. Furthermore,
 the Indian Government is also modernizing India Post and aims to develop it as a distribution
 channel for e-commerce related services.

Say



- Now let us discuss how to sell a product using E-commerce.
- Every product has to be sold on a pla orm on the internet. Think of it as a shop that you have to sell your product. Now this shop can be your own or shared or rented. If the shop is your own or rented there will be only your products in that shop. If the shop is shared, there will be products of mul ple sellers in that shop. A common example is a departmental store which has products from mul ple brands in the shop.

- Similarly, in E-commerce the shop is the website where your products are displayed. If it is your own website it will exclusively showcase your products. In this case the cost that you will incur will be:
 - Developing the website
 - o Hos ng the website
 - o Maintenance of the website
- If you rent a website it will also showcase your own products but the development, hos ng and maintenance parts goes to the owner. This saves me and the cost to manage these ac vi es.
- Smaller companies usually go for ren ng a website and the bigger ones develop their own website.
- The concept of shared pla orms has become very popular in recent mes. In this pla orm, the sellers have to register and then they can sell their goods on a common pla orm. Among the most popular of these are Amazon, Myntra, Flipkart, etc.

Role Play



- Tell the par cipants to choose a product or service that they want to sell online.
- Tell them to write a brief note explaining how they will use exis nge-commerce pla orms or create a new e-commerce pla orm to sell their product or service.

Ask



- · How much money are you carrying in your wallet?
- Do you have a credit/debit card?
- · How do you make payments while doing online shopping?

Say



- Demone za on has made carrying cash in the wallet very di cult. People either shop through cards or some other form of digital money.
- So, what do you think is digital money?
- In this form, the money is both paid and received digitally. There is no hard cash involved. It is an instant and convenient way to make payments.
- There are various types of digital payments. Let us discuss some of them in brief here.
- The first one is the most commonly used system i.e. the cards. Debit card, credit card, prepaid card, all fall under this category.
- Then is the e-wallet or the mobile wallet. This has become the most used form of digital money a er demone za on. Examples are Paytm, state bank buddy, Free charge, etc.
- Many other forms of digital money are also coming up in market like mobile apps, A adhar card-based payment, etc.

Demonstrate how to make and receive payments through digital models like Paytm and state bank buddy.



Why do you think people have started using digital money instead of hard cash? Is demone za on the only reason?



- Digital money gives a lot of advantages over the conven onal hard cash. Some of them
 - o Digital payments are easy and convenient. You do not need to take loads of cash with you, a mobile phone or a card will su ce.
 - o With digital payment modes, you can pay from anywhere any me.
 - o Digital payments have less risk.

Summarize



- Ask the par cipants what they have learnt from this exercise/ac vity.
- Ask if they have any ques ons related to what they have talked about so far.
- Close the discussion by summarizing the importance of e-commerce and digital money.

UNIT 7.3: Money Matters

Key Learning Outcomes 🦞



At the end of this unit, par cipants will be able to:

- 1. Discuss the importance of saving money
- 2 Discuss the benefits of saving money
- 3. Discuss the main types of bank accounts
- 4. Describe the process of opening a bank account
- 5. Di eren ate between fixed and variable costs
- 6. Describe the main types of investment op ons
- 7. Describe the di erent types of insurance products
- 8. Describe the di erent types of taxes
- 9. Discuss the uses of online banking
- 10. Discuss the main types of electronic funds transfer

UNIT 7.3.1: Personal Finance - Why to Save?

Unit Objec ve

At the end of this unit, par cipants will be able to:

- Discuss the importance of saving money
- Discuss the benefits of saving money

Resources to be Used



Par cipant Handbook

Ask



- How many of you save money?
- Why do you feel the need to save it?
- Do you plan your savings?
- Where do you keep the money you save?
- How do you use the money that you have saved?

Example 🕎



Let's look at these two examples:

Example 1:

Suhani works in a good company and earns Rs. 30, 000 months. She always saves 5000 per month and keeps it aside as a personal saving. She keeps the money at home and has saved quite a lot. One day her mother has a medical emergency and has to be taken to the hospital. Her family is worried about the amount they have to spend for the treatment. It will cost them atleast 40,000.

Suhani says tells her family not to worry and that she has about 50,000, which she has saved over the months.

Example 2:

Jasmeet works in the same company and earns the same as Suhani. She is very fond of shopping and spends most of her money on buying new dothes. At the end of the month, she is always asking her father for money as her pay is finished.



- Who do you iden fy with -Suhani or Jasmeet?
- How do you think Suhani manages to save money which Jasmeet is unable to do?

Say



- We should always set aside some and save some money from our monthly pay. The future
 is unpredictable. Saving money not only gives you a sense of financial security but it can
 be used in case of emergencies.
- Discuss "Importance of Saving" with the par dipants as given in the Par dipant Handbook.

Ask



- What are the benefits of saving money?
- What does being financially independent mean to you?

Say



- Discuss "Benefits of Saving" with the par cipants as given in the Par cipant Handbook.
- Now let us con nue with Suhani's story. Suhani has told her family not to worry and that she has about 50,000, which she has saved over the months. The family is happy about Suhani's decision of saving money, which will be of great help for them now. Suhani is going to the hospital today to pay the first instalment for the treatment. Suddenly finds only 35,000 in her cash box when she counts and does not remember using it. She has not kept any record and now she is upset.

Ask



- Was it a good decision by Suhani to save a part of her earnings every month?
- Was it a wise decision to keep all her savings as cash in a cash box?
- Could she have managed to save money in a be er and more e ec ve manner?
- Do you want to learn how to save money and use it e ec vely?

Say



Let's learn personal saving with the help of a group ac vity.

Team Ac vity



Personal Finance-Why to save

• Thisac vityhastwoparts:

PART 1

WAYS TO SAVE MONEY

- You are earning 30,000/- per month. You have recently changed your job and have to move to a metropolitan city. You are now living as a paying guest paying 8,000/- per month. Your other es mated expenditures like travel, food, recrea on would be around Rs. 17, 000 per month.
- Make a list of dierent ways to save money.

PART 2

HOW WILL YOU USE THE MONEY?

- A er a year how much have you been able to save?
- How will you use the money that you have saved?

Do \



- Divide the dass into groups of four.
- Instruct the par cipants to think and prepare a list of the various ways they can save money.
- Give the par cipants 10 minutes to prepare the list.
- Once done, instruct them to think of how they could use the money they have saved.
- Give the par cipants 10 minutes to prepare the list.
- Keep a check on me. Tell the group to wind up quickly if they go beyond the given me limit.

Ac vity De-brief

- What were the dierent ways you could save money?
- How much money were you able to save?
- How will you use the money you have saved in one year?



Discuss the importance of personal finance and why it is important to save money.

Summarize 2



You can summarize the session by discussing:

- The importance of saving money.
- Ways to save money.
- How the money saved can be used for different purposes.

UNIT 7.3.2: Types of Bank Accounts, Opening a Bank Account

Unit Objec ve



At the end of this unit, par cipants will be able to:

- Discuss the main types of bank accounts
- Describe the process of opening a bank account

Resources to be Used



- Account opening sample forms
- Par cipant Handbook



- Howmany of you save money?
- Where do you keep the money you save?
- Howmany of you have a bank account?
- What type of account do you have?

Example



Let's look at the given example:

Reena is in the third year of college but in the evening, she gives tui ons for children living in her colony. She earns 15,000/- per month. As her students stay in dierent parts of the city, she has to walk a lot.

To save me, she decides to buy a second-hand scooter for herself. But she has to save money for it. Her class mate advises her to open a recurring deposit account in the bank.

She goes to the bank close to her home. The personal manager gives her some forms to fill. She is confused as she has never done this before. Her elder sister has an account in the same bank. She asks for help from her sister. She goes to the bank the next day with her sister. The personal banker gives her a list of documents that she will need to submit with the form for opening an account. The banker advises her to open a 6 months recurring deposit.

Ask



- Do you try to save money monthly but have to spend it on unforeseen expenditure?
- Have you ever thought of deposi ng your savings in a bank?



- Before opening a bank account, you need to know the types of accounts we have in India.
- Discuss "Types of Bank Accounts" with the par cipants as given in the Par cipant Handbook.

Ask



Can someone say what are the different types of bank accounts?



Let's learn about the different types of bank accounts through an ac vity.

Team Ac vity



- Divide the class in four groups.
- Label the groups as savings account, current account, recurring account and fixed deposit.
- On a chart paper, ask them to write the key points of their account.

Ac vity De-brief

Ask each group to present the key points of their account.



- Now that you know about the four dierent types of accounts, let's learn how to open a bank account.
- Discuss "Opening a Bank Account" with the par cipants as given in the Par cipant
- Discuss "Tips" that the par cipants should keep in mind while opening a bank account as given in the Par cipant Handbook.

Ask



- What are the main documents required for opening a bank account?
- What are some important points to ask the bank personnel while opening an account?



- Men on o cially valid KYC documents (refer to the Par cipant Handbook)
- Now, let's understand the procedure of opening a bank account through an ac vity.

Team Ac vity



- This ac vity is done in groups.
- Divide the dass in groups of four or six

PART 1

FILLING A BANK ACCOUNT OPENING FORM

- You have to fill a bank opening form.
- You can refer to the sec on "Opening a Bank Account" of your Handbook for reference.
- List all the steps that you will be required to fill in the form.
- List the documents that you need for filling the form.
- Now fill in the form.

Ac vity De-brief

How did you design the form?

- What all details did you fill in the form?
- What were your KYC documents?
- How would this ac vity help you in future?

Do



- Instruct the par cipants to read the sec on "Opening a Bank Account' of the Par cipant Handbook.
- · Give each group one sample account opening form.
- Give the par cipants 5 minutes to read the form.
- Give them 15 minutes to fill it.
- Assist them by explaining each category and how to fill it.
- · Keep a check on me.
- Tell the group to wind up quickly if they go beyond the given me limit

Summarize



Note:

- You can summarize the unit through a role play.
 - o A person wan ng to open an account in the bank.
 - o What is the procedure that he will go through?
 - o Discuss the key points of dierent types of bank accounts.
 - How to select the type of account
 - o How to fill the account opening form.

• A sample account opening form is given in the following page for reference. Use it for the ac vityin the class.

Sample Bank Account Opening form.

Photograph			XXX	X Bank
	SAVING BANI	K ACCOUNT OPE	NING FORM	
Account No.:			Date:	
Name of the Branch				
Village/Town				
Sub District / Block				
District				
State				
SSA Code / Ward No.		T		
Village Code / Town		Name of Village	e/	
Code Applicant Details:		Town		
Full Name Mr./Mrs./	First	Middle		Last Name
Marital Status				
Name of Mother				
Spouse/Father				
Address				
Pin Code				
Tel No. Mobile			Date of Birth	
Aadhaar No.			Pan No.	
MNREGA Job Card No.				
Occupa on/Profession				
Annual Income				
No. of Dependents				

	Owning Hous Y/N		Y/N	Owning Farm	1
	No. of Anima	s :		Any other	2.
Existing Bank A/c. of family nembers / nousehold	Y	7 N	If	yes, No. of A/cs	
Cisan Credit Card	Whether Eligi	ble	Y/N		
request you to is	sue me a Rup	ay Card			
needs subject to	the condition aft facility. I sh	that onl	y one mem	meeting my emerg ber from the house ms and conditions s	hold will be
applicable have b shall abide by a	een read over a	and expl d condit	lained to me tions as may	ect. The terms and and have understood be in force from tir it facility from any ot	od the same. me to time. I
7777					
77.7				Signature / LTI of	
Date:					
Date: Nomination:	nate as under				
Date:	nate as under Relationship	Age	Date of Birth in case of minor		d in case to nount of alf of the vent of my
Nomination: I want to nomin Name of Nominee		Age	Birth in case of	Person authorised receive the am deposit on behanominee in the events.	d in case to nount of alf of the vent of my
Nomination: I want to nomin Name of Nominee		Age	Birth in case of	Person authorised receive the am deposit on behanominee in the events.	d in case to nount of alf of the vent of my
Nomination: I want to nomin Name of Nominee		Age	Birth in case of	Person authorised receive the am deposit on behanominee in the events.	d in case to nount of alf of the vent of my eath.
Nomination: I want to nomin Name of Nominee Place:		Age	Birth in case of	Person authorised receive the am deposit on behanominee in the er/minor(s) de	d in case to nount of alf of the vent of my eath.
Nomination: I want to nomin Name of Nominee Place:		Age	Birth in case of	Person authorised receive the am deposit on behanominee in the er/minor(s) de	d in case to nount of alf of the vent of my eath.
Name of		Age	Birth in case of	Person authorised receive the am deposit on behanominee in the er/minor(s) de	d in case to nount of alf of the vent of my eath.

Fig 7.3.21: Sample account opening form

UNIT 7.3.3: Costs: Fixed vs. Variables: What are Fixed and Variable Costs?

Unit Objec ve 🧐

At the end of this unit, par cipants will be able to:

• Di eren ate between fixed and variable costs

Resources to be Used



- Par cipant Handbook
- Blank sheets of paper
- Pens

Ask



- What is cost?
- Will a telephone bill fall under the category of a fixed or variable cost?



• Discuss: Fixed and Variable cost with examples. Let us do a small ac vity.

Team Ac vity



Iden fy the type of cost

- 1. Rent
- 2 Telephone bill
- 3. Electricity bill
- 4. Machinery
- 5. Insurance
- 6. Office supplies/Rawmaterials
- 7. Employee salaries
- 8. Commission percentage given to sales person for every unit sold
- 9. Credit card fees
- 10. Vendorbills



- Divide the class into two groups. Read out the list of costs given in the ac vity.
- Read out each item from the cost list and ask the groups in turns to iden fy whether it is a fixed or variable cost.



- We saw that your u lity bills like rent, electricity, telephone etc. are all fixed costs because you have to pay it every month.
- Variable costs is an expense which varies with produc on output or volume. For example, commission, raw material etc.
- Discuss "Cost: Fixed vs. variables" with the par cipants as given in the Par cipant Handbook.
- Illustrate the rela on between the costs with a graph.

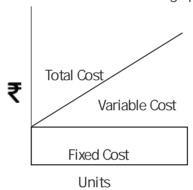


Fig 7.3.3.1: Rela on between costs

Let's learn the difference between fixed and variable cost with the help of an ac vity.

Team Ac vity



Fixed vs. Variable Costs

- This is a group ac vity.
- You want to start your own entrepreneur business.
- State the type of business you want to start.
- List down all the cost or requirements for your business.
- How will you di eren ate between the fixed and variable cost.

Ac vity De-brief

- What is the total cost of your business?
- What are the fixed costs?
- What are the variable costs?
- How did you di eren ate between the fixed and variable costs?

- Instruct the par cipants that this is group work.
- Divide the dass into small groups of 4 or 6.
- Give each group a sheet of paper.
- Tell the par cipants that they have to start their own entrepreneur business.
- Ask them the type of business they want to start.
- Instruct them to di eren ate between the fixed and the variable costs of the business they want to start.
- Give the par cipants 15 minutes to discuss and write.
- Keep a check on me. Tell the group to wind up quickly if they go beyond the given me limit.

Summarize 2



Note: You can summarize the unit either by having a role play between a consultant and a budding entrepreneur explaining the differences between fixed and variable costs or by discussing the key points of the unit.

Notes for Facilita on



•	Answers for the ac vity-Iden fy the type of cost	
1.	Rent	(Fixed)
2	Telephone bill	(Fixed)
3.	Electricity bill	(Fixed)
4.	Machinery	(Fixed)
5.	Insurance	(Fixed)
6.	O ce supplies/ Raw materials	(Variable)
7.	Employee salaries	(Fixed)
8.	Commision percentage given to sales person for every unit sold	(Variable)
9.	Credit card fees	(Variable)
10.	Vendor bills	(Variable)

UNIT 7.3.4: Investments, Insurance and Taxes

Unit Objec ve



At the end of this unit, par cipants will be able to:

- Describe the main types of investment op ons
- Describe the di erent types of insurance products
- Describe the di erent types of taxes

Resources to be Used



Par cipant Handbook



- Ask the par cipants- "What do you see first thing in when you get your mobile bill? Apart from the amount and due date do you have a look at the taxes you are being billed for?
- Why do you think people get their cars insured or have a medical insurance?
- You have saved money and want to invest it; how would you decide what is the best investment for your money?

Example



Let's have a look at a few scenarios.

Ranbir has sold his house and deposited the money in his bank. His Chartered Accountant tells him that he will have to re-invest the money otherwise he will have to pay capital tax. What is capital tax and how is it different from income tax?

Jasmeet and Anup are blessed with a baby girl. They decide to have an insurance policy that will mature when their daughter is ready to higher educa on.

Shivani is working in a corporate office and get ng good pay. She will have to pay income tax, so she decides to invest her money in tax saving schemes. She goes to the bank manager to discuss the best products in which she can invest.



Discuss the Investment, Insurance and Taxes as given in the Par cipant Handbook.

Ask



Howdo investments, insurances and taxes differ from each other?

Say



· Let's learn the differences between the three by having an ac vity.

Say



We will have a quiz today.

Team Ac vity



· Theac vityisaquiz.

Do



- Divide the class into groups of three and give a name to each group
- Explain the rules of the quiz. For each correct answer, the group gets 1 mark. If the group is unable to answer the gues on is rolled over to the next group.
- Explain the purpose and dura on of the ac vity.
- On the blackboard write the names of the groups.
- Ask the ques ons of the quiz.
- Keep a score for the groups.
- Set guidelines pertaining to discipline and expected tasks.

Summarize



• Summarize the unit by discussing the key points and answering ques on

Notes for Facilita on



Ques onsforthequiz

- Mr. Dasgetsmonthly return on one of his insurance policies. Name the policy?
 Money Back Life Insurance
- 2. What are bonds?

Bondsare instruments used by public and private companies to raise large sums of money.

3. Who issues the bonds?

Private and public companies issue the bonds.

4. Why are bonds issued?

To raise large amount of money as it cannot be burrowed from the bank.

5. Who is the buyer of stocks and equi es?

The general public is the buyer.

6. What types of scheme is the Sukanya Samriddhi Scheme?

Small Saving Scheme

7. What is the difference between mutual and hedge funds?

Mutual funds are professionally managed financial instruments that invest the money in different securi es on behalf of investors. Hedge funds invest in both financial deriva ves and/or publicly traded securi es.

8. Why is a loan taken from the bank to purchase real estate?

To lease or sell to make profit on appreciated property price.

9. Name the two types of insurances?

Life Insurance and Non-life or general insurance

10. Which insurance product offers financial protec on for 15-20 years?

Term Insurance

11. What is the benefit of taking an endowment policy?

It offers the dual benefit of investment and insurance.

12. What are the two benefits of a Whole Life Insurance?

It offers the dual benefit of investment and insurance

13. Which policy covers loss or damage of goods during transit?

Marine Insurance

14. Afterwhat dura on is the income taxlevied?

One financial year

15. What is long term capital gain tax?

It is the tax payable for investments held for more than 36 months.

16. Name the tax that is added while buying shares?

Securi es Transac on Tax

17. What is the source of corporate tax?

The revenue earned by a company.

18. Name the tax whose amount is decided by the state?

VAT or Value Added Tax

19. You have bought a T.V. What tax will you pay?

Sales Tax

20. What is the difference between custom duty and OCTROI?

Custom duty is the charges payable when impor ng or purchasing goods from another country. OCTROI is levied on goods that crossborders within India.

UNIT 7.3.5: Online Banking, NEFT, RTGS, etc.

Unit Objec ve 6

At the end of this unit, par cipants will be able to:

- · Discuss the uses of online banking
- · Discuss the main types of electronic funds transfer

Resources to be Used



- Par cipant Handbook
- Computer System with internet connec on
- Debit card

Ask



- When was the last me you visited a bank?
- How do you pay your bill for electricity and telephone?
- Have you ever tried to transfer money from one bank account to another bank account using the online banking facility?

Say



- Most of us lead a busy life. Time has become more important than money. In this busy schedule, no one has me to stand in bank queues. That's where Online Banking comes in. Online banking or internet banking means accessing your bank account and carrying out financial transac ons through the internet.
- Discuss "What is online banking?" from the Par cipant Handbook.
- There are various advantages of online banking:
 - o It saves me, as you need to visit the branch.
 - You can conduct your banking transac ons safely and securely without leaving the comfort of your home.
 - o Online Banking also gives you round the dock access.
 - o Online Banking makes it possible for you to pay your bills electronically.

Do



- Show them how they can use the internet banking.
- Use the computer system and show the demo videos on how to use internet banking provided on most banking sites. the computer system.
- Tell the dass the various features of online banking:
 - o Through their website set-up your online account.

- o Choose a secure username and password.
- o Set-up your contact informa on.
- o Once your informa on is verified, you are good to go.
- Once you enter the portal explore all the features and learn your way through the portal.

Say



- One of the biggest advantage that online banking o ers, as discussed earlier, is transferring money from one account to another. This transac on is called electronic funds transfer. Electronic transfers are processed immediately with the transferred amount being deducted from one account and credited to the other in real me, thus saving me and e ort involved in physically transferring a sum of money.
- Discuss "Electronic Funds Transfer" from the Par cipant Handbook.

Do



- Discuss how to transfer money from one account to another using online banking (NEFT/ RTGS, etc.).
- Illustrate with an example.

Summarize



- Close the discussion by summarizing the about online banking.
- Ask the par cipants if they have any ques ons related to what they have talked about so far

UNIT 7.4: Preparing for Employment & Self-Employment

Key Learning Outcomes 👸



At the end of this unit, par cipants will be able to:

- 1. Discuss the steps to follow to prepare for an interview
- 2 Discuss the steps to create an effec ve Resume
- 3. Discuss the most frequently asked interview ques ons
- Discuss how to answer the most frequently asked interview ques ons
- 5. Iden fy basic workplace terminology

UNIT 7.4.1: Interview Prepara on: How to Prepare for an Interview?

Unit Objec ve 6



At the end of this unit, par cipants will be able to:

• Discuss the steps to follow to prepare for an interview

Resources to be Used



Par cipant Handbook



- Have you ever a ended an interview?
- How did you prepare before going for an interview?



- An interview is a conversa on between two or more people (the interviewer(s) and interviewee) where gues ons are asked by the interviewer to obtain informa on from the interviewee.
- It provides the employer with an opportunity to gather su cient informa on about a candidate and help them select the ideal candidate.
- It also provides the interviewee with an opportunity to present their true poten al to the employer, build confidence and help make a decision about the job by asking gues ons regarding designa on, salary, perks, benefits, promo ons, transfers, etc.
- Let's do an ac vity to understand how to prepare for interviews better.

Ac vity 1



Introducing Yourself

Do



- Select a par cipant and ask him/her to answer the following gues ons: "What can you tell me about yourself."
- Give the par cipant at least one minute to speak.
- Once he/she is done, ask the rest of the par cipant what they gathered about the par cipant who was providing informa on.
- Now repeat the exercise with five other parcipants.

Ask



- What informa on you should include when you are describing or introducing yourself in an interview?
- What informa on you should not include when you are describing or introducing yourself in an interview?

Say



- Tell the par cipants that when an interviewer asks you to say something about yourself, he/she is not asking you to present your life history.
- Introduc on should be short and crisp and should present you in a posi ve light. It should include the following points:
 - o Any work experience that you might have
 - o A brief summary of your educa onal qualifica ons
 - o Your strengths and achievements
 - o Any special projects that you might have been part of
- The following topics should be avoided during an introduc on:
 - o Detailed descrip on of your family (unless you are specifically asked to do so)
 - o Too much informa on about your weaknesses
 - o Informa on that is not true

Do



- · Congratulate each par cipant for sharing their points.
- Ask the audience to applaud for them.
- · Ask de-brief gues ons to cull out the informa on from each group.
- Keep a check on me.

Ac vity 2



· Planning the right at re

Do



• Describe 2 individuals to the par cipants. One is wearing a casual t-shirt, jeans, and slippers. He has not combed his hair and neither has he trimmed or shaved his beard. The other individual is dressed formally with a shirt and pant and is well-groomed. He has also worn formal shoes and a belt. Ask the par cipants which person would they prefer to hire in their organiza on and why?

Summarize 2



- · Close the discussion by discussing 'how to prepare for an interview' as discussed in the Par cipant Handbook.
- You can add the following points to it:
 - o Tell the par cipants to create a posi ve and good impression in an interview. It is important for them to prepare for an interview beforehand.
 - o The interviewer analyses not only your technical knowledge in rela on to the job, but also whether or not you are a fit for the organiza on.
 - o Every employer looks at the whole package and not just one or two things in isola on. Therefore, the way you dress and the way you present yourself is also important along with your skills and talents.
 - o The par cipants will get only one chance to create a good first impression.

UNIT 7.4.2: Preparing an Effec ve Resume: How to Create an E ec ve Resume?

Unit Objec ve

At the end of this unit, par cipants will be able to:

Discuss the steps to create an effec ve Resume

Resources to be Used



- Par cipant Handbook
- Blank Papers
- Pens

Ask



- When preparing for an interview, what are the most important things that you need to
- What documents do you carry with you, when you go for an interview?
- What is a resume?
- Why do you need a resume?



- Resume is not just a sheet of paper with your qualifica ons printed on it.
- It is a selling tool that will help the employer to see how and what you can contribute for company.
- Talk about the steps involved in crea ng an e ec ve/a rac ve resume discussed in the Par cipant Handbook.
- Now let's prepare a resume to understand the processin a better way.



- This is an individual ac vity.
- Give the details of the ac vity.
- Instruct them to read the ac vity carefully.
- The par cipant is expected to make an a rac ve resume based on the informa on provided.
- Give the dass 25-30 minutes to study the case and create a resume.
- At the end of 30 minutes, the par cipants should exchange the resume with the person si ng next to him or her.
- Every par cipant will evaluate the resume prepared with their fellowpar cipants.



- · Do you think the candidate should apply for the job pos ng described in the adver sement?
- We have already discussed the steps involved in crea ng an e ec ve/a rac ve resume.
- Now let's prepare a resume for the candidate details given in the ac vity.

Ac vity



Case Study Analysis

- In the first sec on of the ac vity, you are being given the informa on about a candidate who is applying for a par cular job.
- In the second sec on, you are being given the detailed descrip on of the job pos ng. Create a resume for the candidate to apply for the job pos ng.
- Use the informa on that has been provided about the candidate to create this resume

Candidate Details

Nipesh Singla was born on 20th April, 1988 in Chandigarh, India. He currently resides at 1XX7, Sector XX D, Chandigarh –160018. His mobile number is 988XXXXX01, and e-mail address is nxxxxxxxxla@gmail.com. Nipesh attended middle and senior school at Government Boys Senior Secondary School, Sector 15, Chandigarh. He has been a very talented boy since school. He was fond of pain ng and watching old Hindi movies. As part of a school charity program, he volunteered at the children's hospital during his senior years.

In July 2007, he joined Westwood School of Hotel Management, Zirakpur to pursue a diploma course in Hotel Management and Catering. After comple ng this course, he joined XYZ Group of Hotels as a Housekeeping intern in June 2010 for six months. In this role, he was responsible for deanliness and maintenance of one floor in the hotel. Taking advantage of his strong interpersonal skills, he also got opportuni es to make housekeeping arrangements for corporate mee ngs. While pursuing education, he gained working knowledge of Microso Word, Excel, Access and PowerPoint.

Nipesh is detail-oriented, flexible and adaptable. He has successfully worked with a diverse work force. He gelled well with his peers, both in college and during his internship. After comple ng the internship, his objec ve has been to find a job opportunity where he can use his skills and experience. Backed by experience, he is confident about his skills as housekeepingassistant.

Job Pos ng

*Do you see yourself as a HOUSEKEEPING SUPERVISOR?

What's your passion? Whether you're into cricket, reading or hiking, at IHG we are interested in YOU. At IHG, we employ people who apply the same amount of care and passion to their jobs as they do in their hobbies people who put our guests at the heart of everything they do. And we're looking for more people like this to join our friendly and professional team.

THE LOCATION:

At the moment, we are looking for HOUSEKEEPING SUPERVISOR to join our youthful and dynamic team at Holiday Inn Amritsar, Ranjit Avenue in Amritsar, Punjab (India). Holiday Inn Amritsar is ideally located in Amritsar's commercial district on Ranjit Avenue with the world famous Golden Temple located only a short distance away. Sparkling chandeliers mark an incomparable arrival experience as you escape to the welcoming environment that is, Holiday Inn Amritsar. The fresh interna onal brand to celebrate and explore Amritsar. Salary: Nego able

Industry: Travel / Hotels / Restaurants / Airlines / Railways

Func onal Area: Hotels, Restaurants

Role Category: Housekeeping

Role: Housekeeping Execu ve/Assistant.

Desired Candidate Profile

Friendly, pleasant personality, Service - oriented.

You should ideally be Graduate/Diploma holder in HM and at least 2 years of experience as a supervisor in good brand with good communica on skills, English is a must.

In return we'll give you a compe ve financial and benefits package. Hotel discounts worldwide are available as well as access to wide variety of discount schemes and the chance to work with a great team of people. Most importantly, we'll give you the room to be yourself.

*Please get in touch and tell us how you could bring your individual skills to IHG. Educa on-

UG: Any Graduate/Diploma holder

PG: Post Gradua on Not Required





• Now, let's share the resume with the fellowpar cipant sit ng next to you and evaluate each other's effort.



- Congratulate each par cipant for making their first a empt towards crea ng an e ec ve
- As a followup ac vity, you can suggest them to prepare their own resume and showit to you the next day.

Summarize



- Close the discussion by showing some e ec ve resume samples to the candidates.
- Ask the par cipants what they have learnt from this ac vity.
- Ask if they have any ques on srelated to what they have talked about so far.

Notes for Facilita on



- Keep printed copies of the ac vity ready for the session.
- Put down the suggested format of the resume on the board while explaining the steps in preparing a resume.
- Do check the par cipants' resume and suggest necessary changes.
- Suggested example for the case presented:

Nipesh Singla

#1XX7, Sector XX-D

Chandigarh-160018

Mobile No: 91-988XXXXX01

E-mail: nxxxxxxxxxla@ gmail.com

Objec ve: Seeking an opportunity to use my interpersonal skills and experience to contribute to your company's growth, profitability and objec ves.

Professional strengths:

- Proficient in housekeeping
- Experienced in and capable of working with a diverse work force
- Team player and friendly in nature
- Successful working in a mul -cultural environment
- Detail oriented, flexible, and adaptable
- Knowledge of Microso Word, Excel, Access and Power Point

Educa onal background

- Diploma in Hotel Management and Catering, Westwood School of Hotel Management,
- High School, Government Boys Senior Secondary School, Sector 15, Chandigarh

Professional internships:

- Housekeeping Intern, XYZ Group of Hotels, New Delhi (June 2010 August 2010)
 - o Responsible for deanliness and maintenance of one floor in the hotel.
 - o Got opportuni es to make housekeeping arrangements for corporate mee ngs.

Volunteer Work:

• Student volunteer at children's hospital in Chandigarh.

Nipesh Singla

UNIT 7.4.3: Interview FAQs

Unit Objec ve

At the end of this unit, par cipants will be able to:

- Discuss the most frequently asked interview ques ons
- Discuss how to answer the most frequently asked interview ques ons

Resources to be Used



Par cipant Handbook



- Tell the par cipants you will provide them with interview situa on and gues ons and they have to try to answer them.
- Tell them you will also explain the different ways to approach these gues ons.

Do



- Divide the dass in pairs and ask the par cipants to perform a role play.
- One partner will play the role of the interviewer while the other will play the role of the interviewee.
- Tell them the interviewer can start the interview by asking the interviewee to introduce himself/herself.
- Call all the pairs one by one in front of the dass to enact the role play.
- Follow the same pa ern for all other situa ons.
- Time allo ed for each situa on is 8-10 minutes.
- Congratulate each par cipant for giving their input.
- Ask the dass to applaud each me a team has completed their role play.
- Keep a check on me.

Role Play



Conduct a role play for the situa on given.

Situa on 1

- The interviewer will start by asking the interviewee a few generic quesions such as:
 - o What is your name?
 - o Tell me something about yourself?
 - o Can you tell me something about your family?

- Then, the interviewer will bluntly ask the following ques ons:
 - o How do you explain this huge me gap in your resume?
 - o What is the reason for this?
 - o Weren't you looking for a job or is it that no one selected you?





De-brief:

- When you put informa on on your resume, you should be prepared to answer any ques ons about it.
- Be present and focused on the ques ons being asked to you.
- One way of tackling the blunt ques ons is to tell the interviewer you did not come across
 an opportunity where you were su ciently sa sfied with both the remunera on o ered
 as well as the profile. Therefore, you waited for the right opportunity to come along while
 looking for an ideal job.

Role Play



Conduct a role play for the situa on given.

Role Play - Situa on 2

- The interviewer will start by asking the interviewee a few generic quesions such as:
 - o What is your name?
 - o Tell me something about yourself?
 - o Can you tell me something about your family?
- Then, at the end of the interview, ask the interviewee:
 - o There are over 200 people who have applied for this job, some with excellent work experience. Why should I hire you?





De-brief:

- There is nothing wrong with staing your strengths and achievements. However, do not come across as arrogant or too boas ul.
- You need show the interviewee that you have unique skills or talents to contribute to the company. The interviewer needs to know how you stand apart from the rest of the crowd.
- Tell the interviewer you are looking forward to working with the comp any and that you are a hard-working individual.

Role Play



Conduct a role play for the situa on given.

Role Play - Situa on 3

- The interviewer will start by asking the interviewee a few generic gues on s such as:
 - o What is your name?
 - o Tell me something about yourself?
 - o Can you tell me something about your family?
- Then, lean forward, dasp your hands on the table and in a so voice ask the interviewee:
 - o Did you ever experience any neglect or disregard from your previous office? In other words, did you ever suffer because your office or team displayed favouri sm?



De-brief:

- Keep this in mind: Do not cri dize anyone during an interview.
- · You are free to express your opinion, however, your language, answers, body language, and the tone of your voice should remain construc ve and neutral.
- Since cri dism will show you in nega ve light, you should keep your answers honest yet
- You can tackle such gues ons by saying, "I got along well with most of my faculty and peers."

Role Play



Conduct a role play for the situa on given.

Role Play - Situa on 4

- The interviewer will start by asking the interviewee a few generic ques ons such as:
 - o What is your name?
 - o Tell me something about yourself?
 - o Can you tell me something about your family?
- Then very bluntly ask the interviewee:
 - o Howlongdo you plan to stay with this company if you are selected?
- After the candidate responds, ask sarcas cally:
 - o Do you seriously mean that?



De-brief:

- Don't provide unreal and idealis canswers.
- Your answers should be honest yet diploma c. In a situa on like this, the interviewer does not expect you to provide a specific meline.

You can say something like, "I would like to stay with the company as long as I can contribute construc vely and develop as an employee, within the organiza on, professionally and financially."

Role Play



Conduct a role play for the situa on given.

Role Play - Situa on 5

- The interviewer will start by asking the interviewee a few generic ques ons such as:
 - o What is your name?
 - o Tell me something about yourself?
 - o Can you tell me something about your family?
- Ask him/her howimportant he/she thinks it is to be punctual in the corporate world.
- A er he/she answers, look up sternly at the interviewee and in a crisp voice, say:
 - o You were late for this interview by 10 minutes. That surely does not seem to be in line with what you just said?

Say



De-brief:

- Politely apologize for being late.
- You can add something such as, "I assure you this is not a habit". All your future ac ons should be in line with this statement.
- Avoid giving any excuses.
- · You might feel obligated to provide a jus fica on for your tardiness, but the interviewer is not interested in that.
- Do not over apologize. Once this response is out of the way, turn your focus back to the interview.

Role Play



Conduct a role play for the situa on given.

Role Play - Situa on 6

- The interviewer will start by asking the interviewee a few generic quesions such as:
 - o What is your name?
 - o Tell me something about yourself?
 - o Can you tell me something about your family?
- After asking a few academic or job-related ques ons, ask the interviewee:
 - o If you get this job, what salary package do you expect us to give you?



De-brief:

 If there is no way for you to avoid this gues on, respond to the interviewer by providing a reasonable and well-thought out salary range.

Role Play



Conduct a role play for the situa on given.

Role Play - Situa on 7

- The interviewer will start by asking the interviewee a few generic gues on s such as:
 - o What is your name?
 - o Tell me something about yourself?
 - o Can you tell me something about your family?
- Then, bringing the interview to a dose, ask the interviewee:
 - o Do you have any ques ons for me?



De-brief:

- Ask relevant gues ons.
- Don't bombard the interviewer with gues ons.
- If you have gues ons about the result of the interview, you can limit your gues ons to 1 or 2. Keep them short and relevant like:
 - o When will I be informed about the results of the interview?
 - o What are the working hours?
 - o Will the job require me to travel?

Explain



- Tell the par cipants to be prepared for answering di erent types of ques ons in an interview.
- Stay calm and focused and take a moment to think about how you should respond. Always maintain a confident tone.
- Even if you don't intend to, your body language conveys your level of discomfort with a par cular ques on.
- Try to keep your ac ons, tone, and gestures neutral.
- Maintain your composure while answering personal ques on.

Do



- Tell all the par cipants to form pairs again.
- Tell them to use the following list of frequently asked interview ques ons to conduct mock interviews.

- They will use all or some of these gues ons to conduct mock interviews with their
- One partner will play the role of the interviewer while the other will play the role of the interviewee.
- A er they are through asking and answering the gues ons, the roles will be reversed.
- The same list of ques ons will be used again.
- A er each mock interview ask the interviewer to provide feedback and dear any doubts that may arise.
- Time allo ed for each situa on is 30-35 minutes.

Ac vity



MockInterviewQues ons

Mock Interview Ques ons

Tell me something about your family.

What quali es would you look for in a Manager or a Supervisor?

Why did you apply for this job?

What do you know about this company?

How do you deal with cri cism?

How do you plan to strike a good work-life balance?

Where do you see yourself five years from now?

Have you applied for jobs in other companies?

What kind of salary do you expect from this job?

Do you have any gues ons for me?

Summarize 2



- · Close the discussion by discussing the ques ons in the both ac vi es.
- Ask the par cipants what they have learned from this ac vity.
- Ask if they have any gues on related to what they have talked about so far.

UNIT 7.4.4: Work Readiness - Terms and Terminology

Unit Objec ve



At the end of this unit, par cipants will be able to:

· Iden fy basic workplace terminology

Resources to be Used



- Par cipant Handbook
- Chart papers
- Blank sheets of paper
- Pens

Ask



- What do you understand by workplace terminology?
- Are offer letter and contract of employment the same?



Let's start this unit with an ac vity.

Team Ac vity



Workplace terminology

This is a group ac vity conducted in three parts.

Part 1

Sheila received a call from the recruiter of MND Company. Before she is recruited by the company, think of the recruitment process she will have to go through. Start from the telephone call to signing her letter of acceptance. Write down all the words that come to your mind.

Ac vity De-brief

- Have the par cipants read out the words they have wri en
- Encourage all the par cipants to par cipate in the ac vity



- Divide the dass into small groups of 4 or 6.
- Instruct the par cipants that they will be doing a brainstorming ac vity.
- Give them one chart paper each. Tell them to divide the chart in two parts.
- Instruct them that they have to use one half of the chart paper now. The other half will be used later.
- · The par cipants have to write all the words that come to their mind related to the recruitment process.
- Give them 10 minutes to do the ac vity.
- Tell them that there are no right or wrong an swers.
- Keep a track of the me.



- You all know quite a few words related to the terms used in the o ce.
- Let us talk about some new terms that have been missed out.
- Discuss "Work Readiness Terms and Terminology" with the par cipants as given in the Par cipant Handbook.

Ask



- Why is it important to know the workplace terms?
- How do they help?
- Can the words be categorised further?



Let's now con nue the ac vity.

Team Ac vity



Terms and Terminology

This is again a group ac vity. The members of the group remain the same as in Ac vity 1.

Part 2

With the help of the new terms you have learned, make a flow chart of the hiring process of MND Company.

Ac vity De-brief

Ask the groups to share the flow charts and the new terms they added while preparing the flowchart.

Do \

- Instruct the par cipants that they have to use the 2nd half of the same chart they had used before.
- Using the new terminology and the terms they had previously wri en on the chart, they have to make a flow chart of the hiring process of the MND Company.
- · Give them 10 minutes for this ac vity.
- Keep a check on me. Tell the group to wind up quickly if they go beyond the given me limit.





Let's go ahead with the ac vity.

Team Ac vity



Terms and Terminology

• The ac vity con nues with the same group members.

Part 3

Sheila nowworks for the MND Company. She is not aware of the company culture and policies She goes to the HR Department to get her doubts darified. Can you think of the terms for which she wants darity? Make a list of those words.

Ac vity De-brief

 Ask the groups to share their list of words. Some of the words are benefits, comp. me, deduc on, employee training, holidays, lay-o , leave, maternity leave, mentor, no ce, paternity leave, and me sheet.

Do



- Instruct the par cipants to iden fy the key terms an employee of a company should know. They can use the same chart paper for this ac vity.
- Give them 5 minutes for this ac vity.
- Keep a check on me. Tell the group to wind up quickly if they go beyond the given me limit.

Summarize



Note: You can either summarize the key points of the unit or have a role play where an
employee has just joined a company and the HR Manager explains the terms of
employment.

UNIT 7.5: Understanding Entrepreneurship

Key Learning Outcomes



At the end of this unit, par cipants will be able to:

- 1. Discuss the concept of entrepreneurship
- 2 Discuss the importance of entrepreneurship
- 3. Describe the characteris cs of an entrepreneur
- 4. Describe the different types of enterprises
- 5. List the quali es of an effec ve leader
- 6. Discuss the benefits of effec ve leadership
- 7. List the traits of an effec ve team
- 8. Discuss the importance of listening effectively
- 9. Discuss how to listen effec vely
- 10. Discuss the importance of speaking effec vely
- 11. Discuss how to speak effec vely
- 12. Discuss how to solve problems
- 13. List important problem-solving traits
- 14. Discuss ways to assess problem solving skills
- 15. Discuss the importance of nego a on
- 16. Discusshowtonego ate
- 17. Discusshowtoiden fynewbusinessopportuni es
- 18. Discusshowtoiden fybusinessopportuni eswithin your business
- 19. Explain the meaning of entrepreneur
- 20. Describe the different types of entrepreneurs
- 21. List the characteris csofentrepreneurs
- 22. Recall entrepreneur success stories
- 23. Discuss the entrepreneurial process
- 24. Describe the entrepreneurship ecosystem
- 25. Discuss the purpose of the Make in India campaign
- 26. Discuss key schemes to promote entrepreneurs
- 27. Discuss the rela onship between entrepreneurship and risk appette
- 28. Discuss the rela onship between entrepreneurship and resilience
- 29. Describe the characteris csofa resilient entrepreneur
- 30. Discuss how to deal with failure

UNIT 7.5.1: Concept Introduc on (Characteris c of an Entrepreneur, types of firms/ types of enterprises)

Unit Objec ves 6



At the end of this unit, the par cipants will be able to:

- Discuss the concept of entrepreneurship
- Discuss the importance of entrepreneurship
- Discuss the characteris cs of an entrepreneur
- Describe the di erent types of enterprises

Resources to be Used



Par cipant Handbook





• Let's start this session with some interes ing quesions about Indian entrepreneurs.

Team Ac vity



Quiz Ques ons

- 1. Who is the founder of Reliance Industries? Dhirubhai Ambani
- 2. Who is the Chairman of Wipro Limited? Azim Premji
- 3. Who launched e-commerce website Flipkart? Sachin Bansal and Binny Bansal
- 4. Who is the founder of Paytm? Vijay Shekhar Sharma
- 5. Who is CEO of OLA Cabs? Bhavish Aggarwal
- 6. Who is the founder of Jugnoo? Samar Singla (autorickshawaggregator)
- 7. Who is the founder of OYO Rooms? Bhavish Aggarwal

Do



Tell them that you will ask them few gues on about a few entrepreneurs.

- Divide the dass in to two groups.
- In turns ask the quiz gues ons to the groups.
- If the answer is incorrect pass the ques on to the other group.
- Share the answer if the groups are not able to answer.
- Congratulate the par cipants who answered correctly.

Ask ask



- What do you understand by entrepreneurs?
- What is the importance of entrepreneurship in today's scenario?
- What do you think are the characteris as of successful entrepreneurs?
- What are dierent types of enterprises that an entrepreneur in India can own and run?



- Talk about entrepreneurs, importance of entrepreneurship, characteris cs of successful entrepreneurs, and di erent types of enterprises in India as discussed in the Par cipant Handbook.
- Tell the par cipants, stories of successful Indian entrepreneurs their struggles, the moments of heartbreak, the perseverance and triumph.
- Ask them if they know of any such entrepreneur.

Summarize



Close the discussion by summarizing about the opportuni es for entrepreneurs in India.

Notes for Facilita on



- Check out di erent Government schemes for small entrepreneurs. Share the informa on with the par cipants.
- You can tell them about the government websites like Start Up India, mudra.org.in etc.
- Discuss about various schemes and policies by the Government of India for entrepreneurs.

UNIT 7.5.2: Leadership and Teamwork

Unit Objec ves



At the end of this unit, par cipants will be able to:

- · List the quali es of an e ec ve leader
- Discuss the benefits of e ec ve leadership
- List the traits of an e ec ve team

Resources to be Used



- Par cipant Handbook
- Blank sheets of paper
- Pens



- Show the picture given below to the class.
- Ask them to quickly write on a piece of paper what comes to their mind a er seeing the
- Now ask them, "What do you understand from this picture?"
- Encourage par cipants to share their thoughts.

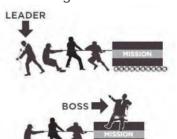


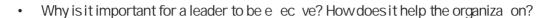
Fig 7.5.21: Encouraging par cipants



- This picture depicts the quali es of a leader and the di erence between a leader and a
- A boss focuses on structure and inspires fear whereas a leader follows vision and generates enthusiasm.
- A boss blames employee for the breakdown whereas a leader fixes breakdown.
- A boss depends on authority whereas a leader depends on goodwill.
- A boss says "I" and a leader says "We."
- A boss drives employee whereas a leader coaches them.
- A bosstakescredit whereas a leader givescredit.

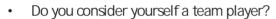
Talk about leadership and leadership quali es for an entrepreneur as discussed in the Par cipant Handbook.

Ask ask





- Let us discuss benefits of e ec ve leadership as discussed in the Par cipant Handbook.
- "Out-of-the-box thinking" is one of the new leadership styles. It means thinking dierently and from a new perspec ve.



Team Ac vity



Long Chain

• This is a group ac vity.



- Divide the class into 2 teams.
- Ask each team to create a chain using materials they have in class such as shoe laces, belts, paper, handkerchief, ribbons, etc.
- The team that creates the longest chain wins the game.
- Observe if the par cipants are interacing with their team or working in isola on.
- Share your observa ons with the class.



De-brief:

- What did the winning team do di erently?
- Who was responsible for the winning team's success?
- How does this ac vity explain the role of teamwork in entrepreneurial success?



Tell the dass that both the teams performed well.

- Discuss that the objec ve of this ac vity was to open communica on channels and how this has been achieved.
- The par cipants should aim to keep the communica on channels open when interac ng with their peers and team members.
- It will set the pace and enthusiasm required for all the ensuing teamwork ac vi es.
- Talk about teamwork and importance of teamwork in entrepreneurial success as discussed in the Par cipant Handbook.

Summarize 2



- Close the discussion by summarizing about the importance of teamwork for employees.
 - o Teamwork helps in reducing stress for the employees.
 - o Teamwork helps employers in genera ng more number of solu ons to a problem and developing improved communica on amongst employees.
- Ask the par cipants what they have learned from these exercises.
- Ask if they have any ques ons related to what they have talked about so far.

UNIT 7.5.3: Communica on Skills: Listening & Speaking: The Importance of Listening E ec vely

Unit Objec ves 6



At the end of this unit, the par cipants will be able to:

- Discuss the importance of listening e ec vely
- Discuss how to listen e ec vely
- Discuss the importance of speaking e ec vely
- Discuss how to speak e ec vely

Resources to be Used



Par cipant Handbook

Ac vity



Ac vity - Chinese Whisper

Step 1: Form a circle.

Step 2: Start a whisper chain. Any one par cipant will whisper a message into his/her neighbor's ear. No one else must hear the message. The message can be serious or downright silly.

Step 3: The next person who first heard the message should whisper the message very quickly to the person sit ngnext to them.

Step 4: The game goes on un I the last person says whatever they heard out loud and the first person reveals the real message.

Compare them and have a great laugh!

Ask ask



De-brief ques ons:

- Was the original message the same as the message that is communicated at the end of the game?
- Why do you think there was a dierence in the messages?



- No, the original message was not same at the end of game.
- The barriers to communica on like language, disturbance and noise, poor listening skills, boredom, poor speaking skills, etc. are the poten all reasons this happens.

- There are various aspects to communica on. Speaking skills and listening skills are two major components to any communica on. There is always some room for improvement in the way we communicate.
- It is important to accept the reality of miscommunica on and work to minimise its nega ve impacts.



- Communica on is a two-way process where people exchange informa on or express their thoughts and feelings
- It involves e ec ve speaking and e ec ve listening.
- If I go to the store to get bread, I exchange money for the bread. I give something and get something in return.
- Communica on takes place in the same manner. You have to provide and receive informa on for communica on to take place.

Ask ask



- Howo en do you hear these statements?
 - o "You're not listening to me!"
 - o "Why don't you let me finish what I'm saying?"
 - o "You just don't understand!"
- What do you think the other person is trying to convey to you through these sentences?
- We will not talk about the importance of listening e ec vely as discussed in the Par cipant Handbook.



Let's play a game to understand effec ve listening process better.



- This is a dass ac vity.
- The par cipants need to answer the gues ons they hear.
- Instruct them to listen carefully.
- You will read it at a stretch and if need be repeat it once more.
- Tell the par cipants to raise their hand if they know the answer to the ques on asked.
- Keep a check on me.

Ac vity



Riddles:

Is there any law against a man marrying his widow's sister?

If you went to bed at eight o'clock at night and set the clock's alarm to ring at nine o'clock, howmany hours of sleep would you get?

Do they have a 26th of January in England?

If you had only one match and entered a dark room that had a kerosene lamp, oil heater, and a wood stove, what would you light first?

The Delhi Daredevils and the Chennai Super Kings play five IPL matches. Each wins three matches. No match was a e or dispute. How is this possible?

There was an airplane crash. Every single person died, but two people survived. Howis this possible?

If an airplane crashes on the border of two countries, would uniden fied survivors be buried in the country they were travelling to or the country they were travelling from?

A man builds an ordinary house with four sides except that each side has a southern exposure. A bear comes to the door and rings the doorbell. What is the colour of the bear?

Answers:

There's no law against a man marrying his widow's sister, but it would be the neatest trick in the book since to have a widow, the man would have to be dead.

You'd get one hour's sleep since alarm docks do not know the difference between morning and night.

Oh, yes. They have a 26th of January in England. They also have a 27th, a 28th, and so on.

First of all, you would light the match.

Who said the Delhi Daredevils and the Chennai Super Kingswere playing against each other in those games?

Every SINGLE person died, but those two were married.

You can't bury survivors under any law especially if they s II have enough strength to object.

The bear that rang the doorbell would have to be a white bear. The only place you could build a house with four southern exposures is at the North Pole where every direc on is in South.

Ask ask



De-brief gues on:

- What were the barriers that came into your way of listening?
- How can you overcome barriers to listening?

Say



- There is a di erence between hearing and listening.
- If you don't listen properly, the message may be misunderstood.
- Be open-minded while listening to someone.
- It is important to listen e ec vely and carefully without making assump ons.

Ac vity



Elevator Pitch:

You are in the li of a hotel and you bumped into your former client who is a famous businessman. He has financed a lot of small business ventures and can finance your new start-up too. A er exchanging pleasantries, he asks you what your new company does. You open your mouth, and then pause. Where do you even begin?

Then, as you try to organize your thoughts, his mee ng is called, and he is on his way. If you would been be er prepared, you're sure that he would have stayed long enough to schedule a mee ng with you too.

If you were given another chance, what would you have said to this person?

Do



- Start o the task by providing a beginning sentence to get the story started, and then go around the classroom ge ng each one to add a new sentence to keep the story going.
- This task should be done spontaneously allowing only a lile me to think (30 seconds).
- For example: There was once a student who was looking for a job a er gradua on.

Notes for Facilita on



- Tell the par cipants to follow these steps to create a great pitch, but bear in mind that you'll need to vary your approach depending on what your pitch is about.
 - 1. Iden fy Your Goal: Start by thinking about the objec ve of your pitch. For instance, do you want to tell the poten all dients about your organiza on? Do you have a great new product idea that you want to pitch to an execu ve or do you want a simple and engaging speech to explain what you do for a living?
 - 2 Explain What You Do: Start your pitch by describing what your organiza on does Focus on the problems that you solve and how you help people. Ask yourself this ques on as you start wring: what do you want your audience to remember most about you? Keep in mind that your pitch should excite you first. After all, if you don't get excited about what you're saying neither will your audience. People may not remember everything that you say, but they will likely remember your enthusiasm.
 - 3. Communicate Your USP: Your elevator pitch also needs to communicate your unique selling proposi on or USP. Iden fy what makes you, your organiza on or

- your idea unique. You'll want to communicate your USP after you've talked about what you do.
- 4. Engage with a Ques on: After you communicate your USP, you need to engage your audience. To do this, prepare open-ended ques ons (ques ons that can't be answered with a "yes" or "no" answer) to involve them in the conversa on. Make sure that you're able to answer any ques ons that he or she may have.
- 5. Put it all Together: When you've completed each sec on of your pitch, put it all together. Then, read it aloud and use a stopwatch to me how long it takes. It should be no longer than 20-30 seconds. Remember, the shorteritis, the better! Example:

Here's how your pitch could come together:

- "My company deals with doth retail online business and we use various e-commerce platforms to sell our products. This means that you can do shopping with ease and spend me on other important tasks. Unlike other similar companies, we have a strong feedback mechanism to find out exactly what people need. This means that, on average, 95 percent of our dients are happy with our products. So, how can you help us in creating our own web portal?
- 6. Prac ce: Like anything else, prac ce makes perfect. Remember, how you say it is just as important as what you say. If you don't prac ce, it's likely that you'll talk too fast, sound unnatural or forget important elements of your pitch. Set a goal to prac ce your pitch regularly. The more you prac ce, the more natural your pitch will become. Prac ce in front of a mirror or in front of colleagues un I the pitch feels natural.

Summarize



 Close the discussion by summarizing how to speak e ec vely as discussed in the Par cipant Handbook.

UNIT 7.5.4: Problem Solving & Nego a on Skills

Unit Objec ves 6



At the end of this unit, par cipants will be able to:

- Discuss how to solve problems
- List the important problem-solving traits
- Discuss ways to assess problem solving skills
- Discuss the importance of nego a on
- Discuss how to nego ate

Resources to be Used



Par cipant Handbook



- What is a 'problem'?
- What do you think are the problems you may face in the process of becoming a successful entrepreneur?



- Discuss the defini on of problem as given in the Par cipant Handbook.
- In a hurdle race the hurdles are the obstacles on the way to reach your goal.
- Similarly, obstacles are the hurdles you may face while reaching your goal i.e. to set -up your own business.
- Your goal will be to reach the finishing line a er crossing these hurdles.



- What do you do when you face a problem?
- How do you resolve it? You can pick examples from the gues on asked previously 'the problems they are likely to face in the process of becoming a successful entrepreneur'.



Discuss how to solve problems as given in the Par cipant Handbook.

Team Ac vity



- This is a group ac vity.
- The groups will solve the problem and come up with the best solu on in each case.

- 1. Unable to arrange for some extra finance for se ng up a beauty parlour. The loan sanc oned and disbursed is not enough. You have tried all your contacts, friends and rela ves. But unable to manage the extra amount. Bank will not sanc on more amount as you have used up the complete sanc on limit.
- 2 You have rented a space for your business and all a rrangements are done. You will be opera ng from the o ce space rented in two days. Now the owner comes up to you and says he wants to sell the place and wants you to vacate in 15 days.
- 3. You have just set up your business and need extra human resource. Yo u have tried inving a few also ed up with an agency for gengthe right candidate. But you are unable to get the right candidate. If the candidate is good, you cannot o er the salary demanded. If the candidate agrees to the salary, he/she has other demands like working hours to be reduced, leaves etc. which may not work for your set up.



- Divide the dass into three groups. Give one scenario to each group.
- Explain the purpose and dura on of the ac vity.
- Ask the groups to build on the scenario and present their solu on as a role play.



De-brief ques ons:

- 1. What was the problem?
- 2 Is there any other alterna ve solu on?
- 3. Is this the best solu on presented?

Ask ask



Try to think of some people around you who are able to solve problems very easily. Even you or your friends might be approaching them when there is a problem. What quali es do they have? What personality traits do such people possess?



Discuss the important traits for problem - solving as given in the Par cipant Handbook.



- In order to build a successful organiza on, you need to hire people who possess good problem-solving skills.
- How would you assess the level of problem solving skills of poten al candidates before hiring them?



Discuss how to assess for problem-solving skills as given in the Par cipant Handbook.

Summarize



- Ask the par cipants the things that they have learnt so far.
- Ask if they have any gues ons related to what they have talked about so far.
- Summarize the discussion on problem solving.

Ac vity



The ac vity is to organise an elec on event. Select three volunteers from the group. They have to give a speech on their elec on manifesto to the class. They have to nego ate with the fellow par cipants and convince them to vote for them. The best nego ator will win the elec on.



- Ask three par cipants to volunteer for the ac vity.
- Explain the purpose and dura on of the ac vity.
- Set guidelines pertaining to discipline and expected tasks.



- Out of the three contestants, whom would you support? Why? What did they say or do which convinced you to make your decision?
- Have you ever tried to nego ate in your personal or professional life?
- Ask the dass to share some of their experiences where they have been able to strike a deal by nego a ng.



Discuss "What is Nego a on?" as given in the Par cipant Handbook.



Why is it important to nego ate? As an entrepreneur, where do you think that nego a on skills will be needed?



Discuss the importance of nego a on while star ng a business as given in the Par cipant Handbook.

Discuss the important steps to nego ate as given in the Par cipant Handbook.

Role Play



- · Conduct a role play ac vity.
- · Ask the par cipants to assemble together.
- Explain the purpose and dura on of the ac vity.
- Set guidelines pertaining to discipline and expected tasks.

Do



- Divide them into groups of four (4) (depending on the batch size).
- Give them the hand-outs for role play scenarios.
- Two groups to be given scenarios on problem solving.
- Other two groups to be given scenarios on nego a on.
- The groups will build on the scenarios and prepare for the role play.
- Give the groups atleast 5 mins to discuss and be ready with the role play.
- Invite each group one by one to come and present their role play.

Problem solving Scenario 1

Avinash has a Mobile Repair Store in Allahabad. His outlet is one of the most popular one in the vicinity and he has great rapport with his customers. He is always well-dressed, jovial and

It's around 11 AM, when a customer barges in to the shop and starts shou ng at Avinash for giving her back the instrument which is s II not working. The screen of her mobile is also cracked from one side. Avinash remembered thoroughly checking the handset before handing it over to the customer. The customer threatens to sue the company and to go to Consumer Court for chea ng her.

Problem solving Scenario 2

You are running a successful small scale business, Shreeji Aggarba s,. Your sta members do door to door selling and organise marke ng campaigns in local markets. Your brand has established it's name in last few years.

Recently, lot of customers have been coming to you and lodging complaints that your sta members indulge in malprac ces. Few of them informed you that a sta member engaged them in a friendly conversa on. In the meanwhile, the other gave them lesser packets of aggarba s than they paid for.

Another set of customers lodged complaint about the misconduct and rude behaviour of a par cular sta member. You o en hear from your customers t hat the orders don't get delivered on me or wrong products get delivered. You have already been struggling with shortage of sta and such complaints are a serious concern as it is hampering your brand image. What strategies will you adopt to solve this problem?

Nego a on Scenario 1

You have interviewed a prospec ve new employee who could be a key member of your new entrepreneurial venture. The new person is demanding a salary that is 20% higher than you thought based on your business

plan. Finances are ght, yet you believe this person could make a significant impact on future profits. If youpaid the required salary for the new person, then you would have to restructure your en re business plan. You've been searching for an individual with this skill level for three months, to the candidate is wai ing for your response. Now you have to call him in to make the final nego a ons.

Nego a on Scenario 2

You are a young entrepreneur who has just registered his start up project and applied for a bank loan accordingly. You receive a le er saying that your loan applica on has been rejected as your start up idea did not appeal to the bank and they think that it is not a revenue genera ng model. You have taken an appointment to meet the manager and show your nego a on skills to get your loan approved.

Notes for Facilita on



Facilita ng Role Plays

Preparing for the ac vity

- 1. Carefully review the details of the scenario and the character descrip ons.
- 2 Become familiar with the key issues being addressed in the scenario.
- 3. Study the provided material so that you are ready to address issues related to the situa ons depicted in the role-plays.
- 4. An cipate and knowhow to address issues par cipants might raise during the ac vity. Conduc ng the ac vity
- 1. Introduce the ac vity. Emphasize that role-playing provides par cipants with an opportunity to apply their newknowledge, skills, and tools in situa onsthat simulate actual interac onswith customers.
- 2 Ask par cipants to form pairs. Direct the members of each group to choose who will play the roles. Remind the groups that each par cipant should be given the opportunity to play/prac ce the different roles.
- 3. Conduct a demonstra on so that par cipants become familiar with the expecta ons related to the roles and support materials.
- 4. Give the pairs/groups 10 to 15 minutes to conduct the role-play (depending on the dura on of the session).
- 5. After all the groups have finished with the role-play, conduct a debriefing session on each
- 6. Ask the groups to take five minutes to talk about what happened during the role-play. The groups should discuss the ques ons given in the debriefing for each role-play.

Encourage par cipants to provide construc vecri cism during their discussions.

Summarize 2



• Wrap the unit up a er summarizing the key points and answering ques ons.

UNIT 7.5.5: Business Opportunity Iden fica on:

Entrepreneurs and Opportuni es

Unit Objec ves 6



At the end of this unit, the par cipants will be able to:

- Discuss how to iden fy new business opportuni es
- Discuss how to iden fy business opportuni es within their business

Resources to be Used



- Par cipant Handbook
- Blank sheets of paper
- Pens

Ask ask



- How does an entrepreneur iden fy an opportunity?
- What do you think are the common queries or concerns faced by entrepreneurs?
- How can you iden fy new business opportunity?



- Let's talk about opportunity, common queries or concerns faced by entrepreneurs, idea as an opportunity, factors to consider when looking for opportuni es, ways to iden fy new business, and opportunity analysis as discussed in Par cipant Handbook.
- Let's do an ac vity to understand ways to iden fy business opportuni es within your business.



- Tell the dass that this is an individual ac vity.
- Tell the par cipants to create a matrix on their notebooks.
- There will be four boxes in your matrix.
- Strength, Weakness, Opportunity and Threats will be the four headings of the matrix. This is called the SWOT matrix.
- Read out the gues ons to them and tell the par cipants they need to answer the ques onsasked in each matrix.
- Tell them they can also use their own understanding of themselves to fill the SWOT matrix.

Ac vity



Do your SWOT analysis

Str	en	ath	١

What are your strengths?

What unique capabili es do you possess?

What do you do better than others?

What do othersperceive as your strengths?

Opportunity

What trends may posi vely impact you? What opportuni es are available to you? Weakness

What are your weaknesses?

What do your compe tors do better than you?

Threat

Do you have solid financial support? What trends may nega vely impact you?



- · Congratulate everyone for the dass ac vity.
- Ask the audience to applaud for themselves.
- Allot the par cipants su cient me to complete this ac vity but do keep a check on me.
- Ask de-brief ques ons to cull out informa on from the par cipants.

Ask (ask)



De-brief ques ons:

- What are your weaknesses according to your SWOT analysis?
- Do you think you can change your weakness into strength? How?
- Do you think you can work on your threats? How?



- · Close the discussion by summarizing ways to iden fy business opportuni es within your business.
- Ask the par cipants what they have learned from this exercise.
- Ask if they have any ques ons related to what they have talked about so far.

UNIT 7.5.6: Entrepreneurship Support Eco-System

Unit Objec ves 6



At the end of this unit, par cipants will be able to:

- Explain the meaning of entrepreneur
- Describe the di erent types of entrepreneurs
- List the characteris cs of entrepreneurs
- Recall entrepreneur success stories
- Discuss the entrepreneurial process
- Describe the entrepreneurship ecosystem
- Discuss the purpose of the 'Make in India' campaign
- Discuss the key schemes to promote entrepreneurs

Resources to be Used



- Par cipant Handbook
- Chart papers
- Marker pens
- **Pencils**
- Colour pencils
- Scale
- Eraser
- Other requisite sta onery material

Ask ask



- · Do you think that entrepreneurs need support?
- What do you think is an eco-system?
- What do you think 'entrepreneurship support eco-system' means?



- Let's learn what entrepreneurship support eco-system means.
- Discuss 'Entrepreneurship Support Eco-System' as given in the Par dipant Handbook

Ask ask



- Can you define entrepreneurship support eco-system?
- What are the key domains of the support eco-system?



- Let's learn more about these domains by conducing an ac vity.
- You have to make a poster showing the components of the six main domains of entrepreneurship support eco-system.

Team Ac vity



Making a poster showing the entrepreneurship support eco-system.

Do



- Divide the class into groups of four or six.
- Hand out chart paper and coloured pens.
- Explain the purpose and dura on of the ac vity.
- Go around checking the progress of each group.
- Set guidelines pertaining to discipline and expected tasks.

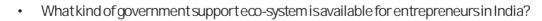
Ac vity De-brief

Ask each group to display their poster and explain the key domains of entrepreneurship support eco-system.



Fig 7.5.6.1: Key domains of entrepreneurship

Ask ask







Discuss' Make in India' campaign as given in the Par cipant Handbook.

Team Ac vity



• Presenta on on key schemes to promote entrepreneurs



- Divide the class into pairs.
- Number each pair from 1-15.
- Assign a scheme, same as their group number, to each group.
- Ask them to read the scheme carefully and present it to the class.
- Explain the purpose and dura on of the ac vity.
- Go around checking the progress of each group.
- Set guidelines pertaining to discipline and expected tasks.

Ac vity De-brief

• Ask each group to explain the scheme offered by government to promote entrepreneurs.

Summarize



Summarize the unit by discussing the key points and answering ques ons the par cipants may have.

UNIT 7.5.7: Risk Appe te & Resilience

Unit Objec ves 6



At the end of this unit, par cipants will be able to:

- Discuss the rela onship between entrepreneurship and risk appette
- Discuss the rela onship between entrepreneurship and resilience
- Describe the characteris cs of a resilient entrepreneur

Resources to be Used



- Par cipant Handbook
- Chart papers
- Blank sheets of paper
- Pens
- Marker pens

Ask ask



- Can you define risk or explain what cons tutes a risk?
- What do you people mean when they say, "This may be a risky proposi on"?
- What risks are they talking about?

Example 🔽



Let's have a look at these two examples:

Rohit and his family were travelling by car from Delhi to Nainital. It was their second trip there. Rohit was familiar with the road. His friends told him that the highway a er Rampur was in a bad condi on. They advised him to take a shortcut and turn le from Moradabad and take the Kaladhungi road. This road is in a be er condi on.

Since he was going with his family, and did want to take the risk of ge ng lost, he le early. He took the Kaladhungi road and reached Nainital well in me.

Suresh and his family too were travelling by car from Delhi to Nainital. It was their second trip there. His friends too advised him to take a shortcut and turn le from Moradabad and take the Kaladhungi road as this road was in a be er condi on.

Suresh too decided to take the Kaladhungi road but he le Delhi in the a ernoon. It was dark by the me he reached Kaladhungi, and he was sure that he was taking the correct turn. As it was late, he could not find anyone to give him direc ons. He ended up being in an unknown place that was scarcely inhabited.



- Let's see what type of risks Rohit and Suresh took.
- Discuss 'Risk Appe te and Resilience' with the par cipants as given in the Par cipant Handbook.



• Let's learn more about risk appe te and resilience with the help of an ac vity.

Team Ac vity



Risk Appe te

- · Thisisa group ac vity.
- In the previous unit, you read success stories of Mr Dhirubhai Ambani and Dr Karsanbhai
- Mr Ambani le his job and started his company Reliance with just Rs. 50,000/-.
- Dr Patel kept his job, went door-to-door to sell Nirma, and only when the brand started gaining popularity did he start his own company.
- What types of risk did both of them take?
- What risk factors, do you think, did they keep in mind before launching their company?
- Write the Risk Appe te Statement of both the companies.

Ac vity De-brief

- Who took a greater risk?
- What are the di erences between the Risk Appe te Statement of both the companies?



- Instruct the par cipants that this is group work.
- Divide the class into small groups of 4.
- Give each group a chart paper.
- Tell the par cipants that they have to evaluate the risks taken by Mr Dhirubhai Ambani and Dr Karsanbhai Patel.
- Give the par cipants 15 minutes to discuss and write.
- Keep a check on me. Tell the group to wind up quickly if they go beyond the given me limit.



- Do you think all entrepreneurial ventures are successful?
- What happens if the first venture is not successful?

Should the entrepreneur stop when faced with challenges or face them?

Example 🔽



Let's have a look at the following example:

Vijay Shekhar Sharma is the founder of Paytm, which is a giant Indian e-commerce. He was born in a middle-class family in U ar Pradesh. He started his first job at an MNC. He quit a er six months and built a company One 97 with his friends. As One 97 grew bigger, it needed more money because it was running more servers, bigger teams, and had to pay royalty. At that me, the tech bubble popped and technology companies were running in losses. Finally, money ran out. So One97 took loans and then more loans at higher rates of interest, as high as 24 per cent, and became caught in a vicious cycle.

In 2014, Paytm was launched with online wallet services a er which, the company enabled online payment transac ons. The company got licenses from RBI in 2016 to launch India's first ever payment bank. Moreover, the main mo ve of Paytm was to transform India into a cashless economy.

A er demone za on came into e ect, Vijay Shekhar Sharma started promo ng online and digital transac ons to deal with the cash crunch. In fact, the service of the company's mobile wallet is accepted across India. The logo of Paytm is now popular almost everywhere from tea stalls to major companies.



Let's see what quali es made Vijay Shekhar Sharma a resilient entrepreneur.

Discuss Entrepreneurship and Resilience with the par cipants as given in the Par cipant Handbook.



• Let's learn more about entrepreneurship and resilience with the help of an ac vity.

Team Ac vity



Entrepreneurship and Resilience

- This is a group ac vity.
- Think of some entrepreneurship ventures that faced challenging mes, but later resulted in success stories.
- Who is the founder of that company?
- What challenging mes did it face?
- How did it overcome those challenges?
- List the resilient characteris cs of the entrepreneur.

Ac vity De-brief

- Each group to give their presenta on.
- Why did you choose this company?
- What is the success story of the company?

Do \



- Instruct the par cipants that this is group work.
- Divide the dass into small groups of 4.
- Give each group a chart paper.
- Tell the par cipants that they have to think of an entrepreneur who faced challenging mes, but eventually succeeded.
- Give the par cipants 15 minutes to discuss and write.
- Keep a check on me. Tell the group to wind up quickly if they go beyond the given me limit.



- You can summarize the key points of the unit.
- · Ask the par cipants what they learned from the ac vi es.
- Clarify any ques ons or doubts they might have.

UNIT 7.5.8: Success and Failures

Unit Objec ves 6



At the end of this unit, par cipants will be able to:

Discuss how to deal with failure

Resources to be Used



Par cipant Handbook

Ask ask



- Have you heard the quote 'nothing is impossible'?
- What do you think it means?
- Do you think that all successful entrepreneurs became famous overnight or did they have to struggle or face failure before succeeding?

Example



Let'shave a look at this example.

Shah Rukh Khan, also known as, SRK or King Khan is a force to reckon with. Did he achieve stardom overnight?

Shah Rukh Khan, who has seen many struggles in his life - he has slept on streets, struggled to support himself and his sister at a very young age, and lost his parents very early in life, which led to his sister seeking mental health support. Amidst all the chaos and challenges, he kept pushing himself, and today he stands tall as the 'Badshah of Bollywood'. Certainly, those years were not easy for him.

When he was young, he stood at Marine Drive and said, "I will rule this city one day". Failure was not just his companion during or before his stardom, it is s II a substan all part of his life. Success does not come easy. What made him a star was his acceptance of failure and the urge to improve.



- How do you define success and failure?
- What is fear?
- Discuss "success and failure" with the par cipants as given in the Par cipant Handbook.

- Have you felt or experienced fear?
- What led you to feel that emo on?
- How did you handle it?





Let's learn the about success and failure with the help of an ac vity.

Team Ac vity



- Divide the class into groups of four.
- Instruct them to think of one scenario where they have to interview a successful entrepreneur.
- Explain the purpose and dura on of the ac vity.
- Set guidelines pertaining to discipline and expected tasks.
- They have to choose one person from the group as the interviewee and one as the interviewer.
- Go around and make sure they have understood what is to be done and are discussing the roles properly.
- Check that everyone understands their role. Give darifica ons if needed. Give the par cipants about 5 minutes to discuss and decide their roles.
- Ask the groups to stop the discussion as soon as the me is over.
- Invite each group one by one to come and present their interview as a role play.

Notes for Facilita on



Facilita ng Role Plays Preparing for the ac vity

- 1. Carefully review the details of the scenario and the character descrip ons.
- 2 Become familiar with the key issues being addressed in the scenario.
- 3. Study the provided material so that you are ready to address issues related to the situa ons depicted in the role plays.
- 4. An cipate poten all ques ons that might be raised by the par cipants and be ready to address them.

Conduc ngtheac vity

- 1. Introduce the ac vity. Emphasize that role playing provides par cipants with an opportunity to apply their new knowledge, skills, and tools in situa ons that simulate actual interac ons with customers.
- 2 Ask par cipants to form pairs. Direct the members of each group to choose who will play the roles. Remind the groups that each par cipant should be given the opportunity to play/prac ce the di erent roles.

- 3. Conduct a demonstra on so that par cipants become familiar with the expecta ons related to the roles and support materials.
- 4. To maintain spontaneity of the interactions during the role play, ask the participants not to discuss the details of their roles prior to the role play.
- 5. Give the pairs 15-20 minutes to conduct the role play.
- 6. Circulate among the groups to answer any ques ons that may arise and provide guidance as needed.
- 7. A er all the pairs have finished with the role play, conduct a de -briefing session on each role play.
- 8. Ask the groups to take five minutes to talk about what happened during the role play. The groups should discuss the ques ons given in the de-briefing for each role play. Encourage par cipants to provide construc ve cri cism during their discussions.
- 9. Conclude the ac vity by asking par cipants to think about whether and how they might use scripted role plays in their real life.

Summarize



• Wrap the unit up after summarizing the key points and answering ques ons.

UNIT 7.6: Preparing to be an Entrepreneur

Key Learning Outcomes



At the end of this unit, par cipants will be able to:

- 1. Discuss how market research is carried out
- 2 Describe the 4Ps of marke ng
- 3. Discuss the importance of idea genera on
- 4. Recall basic business terminology
- 5. Discuss the need for CRM
- 6. Discuss the benefits of CRM
- 7. Discuss the need for networking
- 8 Discuss the benefits of networking
- 9. Discuss the importance of se ng goals
- 10. Di eren ate between short-term, medium-term and long-term goals
- 11. Discuss how to write a business plan
- 12. Explain the financial planning process
- 13. Discuss ways to manage your risk
- 14. Describe the procedure and formali es for applying for bank finance
- 15. Discuss how to manage their own enterprise
- 16. List the important ques ons that every entrepreneur should ask before star ng an enterprise

UNIT 7.6.1: Market Study/The 4Ps of Marke ng/ Importance of an IDEA: Understanding Market Research

Unit Objec ves 6

At the end of this unit, par cipants will be able to:

- Discuss how market research is carried out
- Describe the 4 Ps of marke ng
- Discuss the importance of idea genera on

Resources to be Used



- Par cipant Handbook
- Chart papers
- Markers pens
- Blank sheets of paper

Ask ask



- Suppose, you want to open a restaurant, what are the factors you will consider?
- How will you promote your restaurant?

Example



Let's have a look at this example.

Arjun was an MBA working in a company. But he wanted to start a low-cost budget hostel for foreign tourists coming to India. He did a lot or market research before star ng the project. Based on the informa on he gathered, he made his business plan. His hostel is now flourishing, and he is thinking of expanding to other tourist des na ons.



- Discuss "Market Study" with the par cipants. Refer to the Par cipant Handbook.
- Let's learn about market study and research with the help of an ac vity.

Team Ac vity



Market Study

- This is a group ac vity.
- You want to start your own tui on centre.
- What type of research will you do?

Ac vity De-brief

- Ask each group to come forward and give a brief presenta on.
- Encourage other groups to be interac ve and ask ques ons.
- What factors did you keep in mind while doing your research?
- Based on our research would you go ahead and open a tui on centre?

Do



- Instruct the par cipants that this is group work.
- Divide the class into small groups of 4 or 6.
- Give each group a chart paper.
- Tell the par cipants that they have to start their own tui on centre.
- Give the par cipants 10 minutes to discuss and write the research work they need to do.
- Keep a check on me. Tell the group to wind up quickly if they go beyond the given me limit.



By opening a tui on centre you are o ering a service.



What factors will you keep in mind before opening it?



Discuss "The 4Ps of Marke ng" with the par cipants as given in the Par cipant Handbook.



Let's learn about the 4Ps of Marke ng with the help of an ac vity.

Team Ac vity



4 Ps of Marke ng

- This is a group ac vity.
- You have to sell a pen to four di erent segments:
 - 1. Rural villagers
 - 2 Rural middle dass
 - 3. Urban middle dass
 - 4. Upper end rich people (Niche market)

Keeping the 4Ps of Marke ng in mind, what marke ng strategy will you design to sell the pen?

Ac vity De-brief

- · Ask each group to present their strategy.
- Encourage other groups to be interac ve and ask ques ons.

Do



- Instruct the par cipants that this is group work.
- Divide the dass into four groups.
- Give each group a chart paper.
- Assign each group a target audience for selling the pens:
 - 1. Rural villagers
 - 2 Rural middle dass
 - 3. Urban middle dass
 - 4. Upper end rich people
- Tell the par cipants that they have to design a marke ng strategy keeping the 4Ps of Marke ng in mind.
- Give the par cipants 20 minutes to discuss and come up with their strategy.
- Keep a check on me. Tell the group to wind up quickly if they go beyond the given me limit

Ac vity De-brief

- Ask each group to come forward and give a brief presenta on.
- Ask each group what they kept in mind while designing their marke ng strategy.
- Encourage other groups to be interactive and ask questions.

Say



- Each entrepreneur has an idea of wants he wants to sell. It may be a service or a product.
- Discuss "Importance of an IDEA" as given in the Par cipant Handbook.



- Summarize the key points of the unit.
- Ask the par cipants what they learnt from the ac vi es.
- Encourage them to ask if they have any doubts.

UNIT 7.6.2: Business En ty Concepts

Unit Objec ves



At the end of this unit, par cipants will be able to:

Recall basic business terminology

Resources to be Used



• Par cipant Handbook



- Let's recall some basic business terminology.
- Discuss the Business En ty Concepts as given in the Par cipant Handbook.
- Let's learn some basic business terminology by having an ac vity.
- We will have a quiz today.

Ac vity



The ac vity is a quiz.



- Divide the class in two groups and give a name to each group.
- Explain the rules of the quiz. For each correct answer the group gets 1 mark.
- If the group is unable to answer the ques on is passed to the next group.
- Explain the purpose and dura on of the ac vity.
- Ask the ques ons of the quiz.
- Keep a score of the groups.
- Set guidelines pertaining to discipline and expected tasks.

Summarize



Summarize the unit by discussing the key points.

Notes for Facilita on



QUESTIONS FOR THE QUIZ

1. What does B2B mean?

Business to business

2 What is a financial report?

A comprehensive account of a business' transac ons and expenses

3. Who is a sales prospect?

A poten al customer

4. How is working capital calculated?

Current assets minus current liabili es

5. What is an esma on of the overall worth of a business called?

Valua on

6. You are buying a house. What type of transac on is it?

Complex transac on

7. How will you calculate the net income?

Revenue minus expenses

8. How is Return on Investment expressed?

As percentage

9. How will you calculate the cost of goods sold?

Cost of materials minus cost of outputs

10. 10. What is revenue?

Total amount of income before expenses are subtracted.

11. What is a Break-Even Point?

This is the point at which the company will not make a profit or a loss. The total cost and total revenues are equal.

12. What is the formula used to calculate simple interest?

$$A = P(1 + rt); R = r * 100$$

13. What are the three types of business transac ons?

Simple, Complex and Ongoing Transac ons

14. The degrading value of an asset over me is known as

Deprecia on

15. What are the two main types of capital?

Debt and Equity

UNIT 7.6.3: CRM & Networking

Unit Objec ves 6



At the end of this unit, par cipants will be able to:

- Discuss the need for CRM
- Discuss the benefits of CRM
- Discuss the need for networking
- Discuss the benefits of networking

Resources to be Used



Par cipant Handbook



- Can your business run without customers/buyers?
- Who is the most important en ty in any business?



- The key to every success business lies on understanding the customer's expecta ons and providing excellent customer service.
- Discuss about CRM and its benefits. Refer to the Par cipant Handbook.
- Providing excellent customer service entails:
 - o Trea ng your customers with respect.
 - o Be available as per their need/schedule.
 - o Handling complaints e ec vely.
 - o Building long las ng rela onships.
 - o Collec ng regular feedback.
- Handle customer complaints proac vely. Ask "what happened", "why it happened", "how can it be avoided next me", etc.
- Collec ng feedback from the customers regularly will enable you to improve your good/service.
- "Let's understand it be er with the help of some case scenarios. You will be given some cases within your groups. You have to analyse the case scenario that has been given to you and then find an appropriate solu on to the problem."



- Divide the dass into four groups of maximum six par dipants depending on the batch size.
- Give one case study to each group.

- Instruct them to read the case carefully.
- The group is expected to analyse and discuss the case amongst them and find a solu on to the given problem.
- Put down the discussion points (de-brief ques ons) on the board. Give the dass 5-10 minutes to discuss the case and note down their solu ons.
- At the end of 10 minutes, the team should present their case solu on to the dass.

Team Ac vity



Case Study Analysis

Raju runs a business of wooden furniture. He has a huge list of customers on Facebook and WhatsApp who give him orders regularly. Ankita is one of his old and regular customers. She placed an order for a new chester and TV cabinet via WhatsApp and requested Raju to send them as soon as possible. When the parcel reached Ankita through courier she found that chester was broken and the TV unit was chipped from the bo om. Ankita was heartbroken. It was a complete waste of money. She sent a message to Raju on WhatsApp, expressing her anger and disappointment. Raju might lose an old customer forever if he doesn't sa sfy the customer. What should Raju do to retain his customer?

Scenario 2

Rajni runs a bou que shop. She sells suits and sarees. She is one of the most successful designer in her city. Rajni swears that all the dothes in her bou que have unique designs. Smita has to a end her cousin's wedding; she goes to Rajni's bou que to buy a saree. Smita wanted a unique designer saree. Raini customized a saree for her and sent it over the courier. When Smita had a look at the saree she realised her two friends had the same design sarees. She sent a message to Rajni on WhatsApp, expressing her anger and disappointment. Did Rajni make a false promise? Were her designs copied? What could happen to Rajni's image a er this incident? What would you do if you were in Rajni's place?

Scenario 3

Shama is a beau cian who o ers parlour services to ladies by making home visits. Recently, Shama got her name registered on an e-commerce website. Two days earlier, she got a message from Mrs Sushma. The appointment was fixed for next day, 11:00 am and the remunera on for the services was decided beforehand. When Shama reached there at 10:50 am, Mrs Sushma was not at home. When Shama called her, she asked her to wait for a while. Mrs Sushma reached home at 11:45 am. Meanwhile, Shama had to reschedule her next appointment. A er availing Shama's services, Mrs Sushma refused to pay the requisite amount and started finding faults in the services provided by her. Who was at fault in this scenario? What should you do in case the customer behaves unreasonably? What would you do if you were in Shama's place?

Scenario 4

Shailender is the manager of a car showroom. He proac vely takes part in all the transac ons that happen in his showroom. Vinita wants to buy a new car. She has chosen a car from Shailender's showroom. The salesperson has given her a very good discount and has also promised free service for one year. Vinita goes to the showroom and asks to complete all the formali es to purchase the car. When she sees the final bill she realize that she has not received the promised discount neither was there any men on of the free services. She immediately demands to see the Shailender. When Shailender's head asks howmuch discount Vinita was promised, he realised the discount will make the sale in loss. The car showroom owner might lose a customer and deal due to false commitments made by his manager. Besides, the customer might tell this to other people, crea ng a bad name and image for the showroom. If you owned that showroom, how would you have convinced your customer?

Say



- Now, let's discuss the problem and solu on with the dass.
- The group will first briefly describe the case to the class.
- Then discuss the issue iden fied and the proposed solu on.
- Present the solu on as a role play.
- Post presenta on, the other groups may ask ques ons from the group that has presented.

Do



- Congratulate each group for the presenta on/role play.
- Ask the audience to applaud for them.
- Keep a check on me. Tell the group to wind up the discussion quickly if they go beyond the given me limit.

Say



- If your customers are happy with you they will give referrals which will help to grow your business.
- One more way of growing business is 'Networking'.
- Discuss Networking and its benefits. Refer to the Par cipant Handbook.

Ac vity



Group Discussion

• Conduct a group discussion in the dass on how they can do networking for their business.



- Ask the par cipants what they have learnt from this exercise/ac vity.
- Ask if they have any ques ons related to what they have talked about so far.
- Close the discussion by summarizing the importance of CRM and Networking for entrepreneurs.
- Close the discussion by summarizing the importance of CRM and Networking for entrepreneurs.

UNIT 7.6.4: Business Plan: Why Set Goals?

Unit Objec ves 6



At the end of this unit, par cipants will be able to:

- Discuss the importance of se ng goals
- Di eren ate between short-term, medium-term and long-term goals
- Discuss how to write a business plan
- Explain the financial planning process
- Discuss ways to manage your risk

Resources to be Used



- Par cipant Handbook
- Chart papers
- Blank papers
- Marker pens
- Ruler



- Remember we had wri en SMART Goals in a previous session? Let's try and recall why it is important to set goals?
- While framing SMART goals, we talked about 'T' in SMART, which was 'Time Bound'? What do we mean by me bound goals?
- What me limit did you set for your goal 3 weeks, 3 years, 10 years?



Talk about short term, long term and medium-term goals, as discussed in the Par cipant Handbook.



As you are planning to become an entrepreneur, you must have thought of an idea for a start-up. What is your business idea?



Ask few par cipants to share their business ideas.

- Have you created a business plan for your business idea?
- Do you think it is important to have a business plan in place? Why/why not?



- Talk about 'Why Create a Business Plan' as discussed in the Par cipant Handbook.
- Let's understand it be er with the help of an ac vity.

Team Ac vity



Wri ng a business Plan

- This is a group ac vity.
- Give the groups the required resources such as chart paper and markers.
- This ac vity is divided into two parts:
 - 1. Create a business idea
 - 2 Develop a business plan
- The group will discuss and come up with a new business idea and present their idea to the class.
- In the second part of the ac vity the group will develop a business plan for the business
- The business plan prepared will be presented by the groups to the class.

MY BUSINESS PLAN	
Execu ve Summary: What is your Mission Statement?	
Business Descrip on: What is the nature of your business?	
Market Analysis: What is your target market?	
Organiza on and Management: What is your company's organiza onal structure?	
Service or Product Line: What is the lifecycle of your product/service?	
Marke ng and Sales: How will you adver se and sell your products?	
Funding Request: How much fund is required and from where?	

Say



- Teams will need to brainstorm for this part of the ac vity.
- Use the blank papers for the second part of this ac vity
- Make your business plan on a chart paper based on the following parameters:
 - 1. Execu ve Summary
 - 2 Business Descrip on
 - 3. Market Analysis
 - 4. Organiza on and Management
 - 5. Service or Product Line
 - 6. Marke ng and Sales
- Explain each parameter in detail as done in the Par cipant Handbook.
- Discuss each parameter with the business idea examples of the groups.
- Groups will discuss and develop the business plan for their business idea.

Say



- Now, let's share our plan with the class.
- Each group will briefly describe the plan to the class.
- Post presenta on, the other groups may ask ques ons to the group who have presented their plan.

Do



- Congratulate each group for sharing their points.
- Ask the audience to applaud for them.
- Keep a check on me. Tell group to wind up the discussion quickly if they go beyond the given me limit.

Say



- Along with a business plan, you need to create a financial plan and evaluate the risk involved with your start up.
- Discuss 'Financial Planning' and 'Risk Management' in detail as given in the Par cipant Handbook.



- Ask the par cipants what they have learnt from this exercise/ac vity.
- Ask if they have any ques ons related to what they have talked about so far.

Notes for Facilita on



• Keep the business plan format ready in a flipchart to display it during the ac vity.

UNIT 7.6.5: Procedures and Formali es for Bank Finance

Unit Objec ves 6



At the end of this unit, par cipants will be able to:

- Discuss the importance of se ng goals
- Di eren ate between short-term, medium-term and long-term goals
- Discuss how to write a business plan
- Explain the financial planning process
- Discuss ways to manage your risk

Resources to be Used



- Par cipant Handbook
- Bank loan/finance form sample



While preparing a business plan in the last session, we discussed financial planning to arrange financial resources for your start-up. Therefore, how will you collect funds to start your business?



- While most entrepreneurs think 'product' is the most di cult thing to decide for a business, start-up capital poses an even a bigger obstade. Though there are various ways of funding the business, to convince investors to invest money is the most challenging.
- Some of the funding op ons available in India are:
 - o Bootstrapping: Also called self-financing is the easiest way of financing
 - o Crowd funding: Funds are collected by consumers pre-ordering or dona ng for star ng the business.
 - o Angel investors: Individual or group of investors investing in the company
 - Venture capitalists: Venture capitals are professionally managed funds who invest in companies that have huge poten al. They usually invest in a business against equity.
 - o Bank loans: The most popular method in India.
 - o Microfinance Providers or NBFCs
 - o Government programmes
- Let us know discuss the most popular method i.e. bank finance in detail here.

- Discuss the list of documents that are required to apply for a loan like le er of introduc on, business brochure, references of other banks, and financial statements.
- Explain the details to be filled in a loan applica on form.
- Divide the class into groups. Give each group a loan applica on form.
- Ask the groups to discuss and fill the form.

Summarize



- Close the discussion by summarizing the important documents needed for bank loan.
- Ask the par cipants if they have any gues ons related to what they have talked about so

Notes for Facilita on



- Checklist of documents is provided as resources for the session.
- You can make some copies and distribute it during the group ac vity.
- Download sample loan applica on forms from any na onalised bank's website. Print su dient copies to circulate it amongst the groups.

CHECKLIST OF DOCUMENTS TO BE SUBMITTED ALONG WITH LOAN APPLICATION (Common for all banks)

- 1. Audited financial statements of the business concern for the last three years
- 2 Provisional financial statements for the half year ended on
- 3. Audited financial statements of associate concern/s for the last three years
- 4. Copy of QISII for the previous quarter ended on

5.	Opera	onal details in Annexure I	
O .	Op 0. a		

6. CMA data for the last three years, es mates for current year and projec on for the next

7. Term Ioan/DPG requirements in Annexure II

- 8. List of machinery in respect of machinery offered as security in Annexure III
- 9. Addi onal details for export advances furnished in Annexure IV
- 10. Property statements of all directors/partners/proprietor/guarantors
- 11. Copies of ITAO of the company for the last three years
- 12 Copies of ITAOs/WTAOs of the directors/partners/proprietor and guarantors
- 13. Copies of cer ficate from banks and financial ins tu ons cer fying the latest liability with
- 14. Copy of board resolu on authorizing the company to apply to your bank for the credit facili es men oned in applica on

- 15. Copy of memorandum and ar de of associa on (in case of limited company)/partnership deed (in case of partnership firm)
- 16. Cash budget for the current year and next year in case of contractors and seasonal industries.

Fig 7.6.5.1: Checklist of documents

UNIT 7.6.6: Enterprise Management - An Overview: How to Manage Your Enterprise?

Unit Objec ves 6



At the end of this unit, par cipants will be able to:

Discuss how to manage their own enterprise

Resources to be Used



Par cipant Handbook



- Having set up a business, do you think it is possible to do everything on your own?
- Does one require trained persons for help?
- What does management mean?



Let's have a look at this example:

Kapil had a small business that was beginning to pick up pace. He wanted to expand his business, and therefore employed few more people. One day, as he was walking past Ramesh, one of his new employees, he overheard Ramesh talking rudely to a customer on the phone. This set him thinking, Kapil realised that he should have regular team mee ngs to mo vate his employees and speak with them about any problems they might be facing during work. He should also conduct training sessions on new prac ces, so skills, and technology, and develop work ethics manual for managing his enterprise.



- Was Kapil correct in his approach or he should have scolded Ramesh instantly in front of his other employees?
- Discuss "Enterprise Management An Overview" with the par cipants as given in the Par cipant Handbook.



Let's learn how to e ec vely manage an enterprise or business through an ac vity.

Team Ac vity



Enterprise Management

- This is a group ac vity.
- · Design a matrix lis ng the topics and key words that are needed to run an enterprise e ec vely and smoothly.

Ac vity De-brief

- Have each group present their matrix.
- Encourage par cipants of the other groups to ask gues on about each other's presenta on.



- Instruct the par cipants that this is group work.
- Divide the class into small groups of 4.
- Give each group a chart paper and coloured pen.
- Tell the par cipants that they have make a matrix they need to fill.
- They have to write the main topics and key words that will them e ec vely manage their enterprise.
- Give the par cipants 15 minutes to discuss and write.
- Keep a check on me. Tell the group to wind up quickly if they go beyond the given me



- Ask the par cipants what they have learned from this exercise/ac vity.
- Ask if they have any gues ons related to what they have talked about so far.
- Close the discussion by summarizing the importance of e ec ve management to run an enterprise as given in the Par cipant Handbook.

UNIT 7.6.7: 20 Ques ons to Ask Yourself before

Considering Entrepreneurship

Unit Objec ves 6



At the end of this unit, par cipants will be able to:

· List the important gues ons that every entrepreneur should ask before star ng an enterprise

Resources to be Used



- Par cipant Handbook
- Blank sheets of paper
- Pens



Why do you want to become an entrepreneur?



- It is very important to know why you want to become an entrepreneur. Your personal goals for becoming an entrepreneur play a key role in the success of your business. Your goals should be dear well before you start your business.
- Apart from the goals, the other aspects of business that you need to bear in mind are the poten all problems that you may face to set-up, your areas of interest, and all the other dimensions of the business.
- Let's understand it be er with the help of some ques ons that every entrepreneur should ask before star ng their own business.
- Open the Par cipant Handbook sec on named '20 Ques ons to Ask Yourself Before Considering Entrepreneurship'. You have to answer the ques onsindividually.
- Then, we will have a dass discussion on all the ques ons.



- Read out the gues ons one by one in front of all the par cipants.
- Par cipants have to answer all the one by one ques ons.
- Give the dass 10-15 minutes to note down their answers.
- At the end of 15 minutes, open the discussion for all the gues ons.
- Moderate the discussion by focusing on the relevant points.

- Keepacheckon meand don't let the discussion get sabotaged or lose track of me. Ensure all the ques ons are covered and discussed.
- Give the par cipants 15 minutes to discuss and write.
- Keep a check on me. Tell the group to wind up quickly if they go beyond the given me limit.



- Ask the par cipants what they have learned from this exercise/ac vity.
- Ask if they have any ques ons related to what they have talked about so far.











8. Annexures

Annexure 1 – Training Delivery Plan Annexure 2 – Assessment Criteria

Annexure 1

Training Delivery Plan

Training Delivery Plan							
Program Name:	Cer ficate Course in CC	er ficate Course in CCTV Installa on Technician					
Qualifica on Pack Name & Ref. ID	CCTV Installa on Techni	ician (ELE/Q4605)					
Version No.	V1.0	Version Update Date	07-12-2015				
Pre-requisites to Training	ITI Diploma, Minimum 6	6 months as helper					
Training Outcomes	By the end of this progr	am, the par cipants will b	pe able to:				
	requirements. 2. Ensure customer sa 3. Install and Repair dy 4. Iden fy dysfunc on use of mul meter 5. To understand CCTV equipment, system, site. 6. Select Suitable came customers. 7. Read and Comprehe 8. Communicate e ec 9. Follow behaviour e	requirements. 2. Ensure customer sa sfac on 3. Install and Repair dysfunc onal system. 4. Iden fy dysfunc onal components through visual insperuse of mulmeter 5. To understand CCTV camera installa on requirement in equipment, system, tools, applica ons appropriate for site. 6. Select Suitable cameras & DVR to provide the beer so customers. 7. Read and Comprehend signs, labels and warning 8. Communicate ecvely					

SI. No	Module Name	Session Name	Session Objec ves	NOS Reference	Methodology	Training Tools/Ads	Dura on
1	Security Surveillan ce	Surveillance system	Understand the surveillance system Knowledge of pros & cons of surveillance Explain the facts of video surveillance Explain and construct various nodes of CCTV surveillance system	ELE/N4611 KB1, KB2, KB3, KB4, KB5, KB6, KB7, KB8, KB9, KB10, KB11, KB12, KB13, KB14, KB15, KB16, KB17, KB18, KB19, KB20, KB21, SB2, SB3, SB4	Facilitator -led - Discussion	IOUIS/AUS	5 hrs
2	Func ons of video surveillan ce	Video surveillance system	 Construc ng of a video surveillance system Explain func on of blocks and equipment required to implement a video surveillance system Understanding the facts about CCTV and its interfacing devices 	ELE/N4611 KB1, KB2, KB3, KB4, KB5, KB6, KB7, KB8, KB9, KB10, KB11, KB12, KB13, KB14, KB15, KB16, KB17, KB18, KB19, KB20, KB21, SB2, SB3, SB4	Facilitator- led – Discussion Demonstra on	a. Camera b. DVR c. Cables d. Adapter e. Display device.	5 hrs
3	Types of Camera & their func ons	Camera and their func ons	Understanding the various types of camera and their func onality Reassembling the camera & exam the parts of camera to understand their mechanism.	ELE/N4610 PC14, PC15, PC16, PC17, PC18, PC19, PC20, KB6, KB13, KB14 ELE/N4611 PC1, PC2, PC3, PC4, PC5, PC6, PC7, PC8, KB7, KB8, KB9	Facilitator- led – Discussion Demonstra on	a. Camera (di . types) b. DVR c. Cable d. Screw driver set e. Display	5 hrs

	1	1				1			
4	Principles	CCTV and	•	Selec ng suitable camera a er understandi ng Explain the	ELE/N4610	Demonstra	a.	DVR	6hrs
	of remote accessing	DDR		nodes for remote access of a CCTV camera / DVR Configuring the DVR	PC14, PC15, PC16, PC17, PC18, PC19, PC20, KB6, KB9, KB11, KB15	on	b. c. d. e. f.	Camera Cable LAN connec o n/Modem Laptop Display	
5	Install the CCTV camera	CCTV Camera	•	To understand the warranty associated with the hardware product To know related documents for the hardware equipment To know company's policy on product's warranty and other terms and condi ons To know company's customer support and service policy To know camera specifica on s such as focus, lens type, zoom To check the hardware equipment before taking to the installa on site	ELE/N4610 PC1, PC2, PC3, PC4, PC5, PC6, PC7, PC8, PC9, PC10, PC11, PC12, PC13, PC14, PC15, PC16, PC17, PC18, PC19, PC20, PC21, PC22, PC23, PC24, PC25, PC26, PC31, PC32, PC33, PC34, PC35, PC36	Facilitator- led – Discussion Demonstra on			6Hrs

•	To replace
	the
	hardware if
	there is any
	issue or
	malfunc on
	is found
	while tes ng
	To Know
	di erent
	types of
	electronic
	surveillance
	products
	and
	func onali
	es
•	To read the
	standard
	opera ng
	procedures
	for di erent
	equipment
•	To Know
	elements of
	CCTV
	systems
	such as
	camera,
	DVR,
	monitor
•	To check for
	cri cal
	equipment
	such as
	camera,
	recorder
	wr.t quality
	and output
•	To ensure all
	the tools,
	equipment,
	u li esare
	available in
	good to
	enable
	installing in
	single visit
	To know
	specifica on
	and the
	procedures
	to be
	followed for
	se ng up
	the system
	u io sysiciti

To know
func onsof
electrical
and
mechanical
parts or
modules
To know
power
requirement
of di erent
CCTV
related
equipment
To use BNC
connectors
for joining
cables and
crimp them
To connect
all the
cables from
mul ple
cameras to
the CCTV
system area
To know
installa on
procedures
given in the
manuals
To use
power cable
of specified
thickness to
connect
CCTV system
with power
supply
To know
basic
electronics
involved in
the
hardware
To know
voltage and
power
requirement
for di erent
hardware
devices
To know
voltage
requirement
and other

				_	1	
		specifica on				
		on CCTV				
		hardware				
	•	To mount				
		the CCTV				
		camera so				
		as to cover				
		maximum				
		area				
	•	To decide				
		whether the				
		camera				
		requires any				
		endosure to				
		protect from				
		dust,				
		vandalism				
		and dima c				
		condi ons				
	•	To know				
		camera				
		specifica on				
		s such as				
		focus, lens				
		type, zoom				
	•	To know				
		controls of				
		di erent				
		op onsin				
		camera such				
		as rota on,				
		speed of				
		movement				
		in pan / It				
		camera				
	•	To use				
		stable				
		moun ng				
		structure				
		and ensure				
		thatisnot				
		disturbed by				
		wind or rain				
		which would				
		a ect the				
		video				
		quality				
	•	To decide on				
		the height				
		of camera				
		installa on				
		according to				
		the end				
		purpose (for				
		example: if				
		the visitor				
		u ic visitul	<u> </u>	L		<u> </u>

	entering the	
	premise is	
	to be	
	monitored,	
	camera	
	should not	
	be placed	
	too high and	
	their face	
	would not	
	be captured)	
	To set up	
	the type of	
	camera such	
	as pan, It,	
	zoom unit as	
	per	
	customer	
	requirement	
	To set	
	camera	
	control	
	To connect	
	the power	
	and video	
	output cable	
	to the	
	camera	
	To use tools	
	such as	
	diagonal	
	cu ers,	
	screwdrivers	
	, crimp	
	tools, knife	
	for cabling	
	and camera	
	moun ng	
	To use	
	recommend	
	ed tools for	
	specific	
	equipment	
	to avoid	
	damage	
	To know	
	func onsof	
	electrical	
	and	
	mechanical	
	parts or	
	modules	
	To know	
	how to	
	operate the	
	system and	

other hardware To follow standard opera ng procedure of tools and equipment and avoid any hazard To follow the installa on manual for specific hardware product To follow standard safety procedures while installing No know installa on procedures given in the manuals To know installa on procedures given in the manuals To know standard safety procedures given in the manuals To know installa on procedures given in the manuals To know installa on procedures given in the manuals To know installa on procedures given in the manuals To know safety rules policies and procedures Policies and procedures To know safety rules policies and procedures To know quality standards to be followed To use other specific devices for installa on of camera To improve work processes To ensure that only	
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hardware hardware	
products are	
procured	
Complying	complying

to industry		
and quality		
standards		
To ensure		
product		
installa on		
and user		
manual is		
available		
which		
should be		
given to the		
user or		
customer		
To ensure		
that there		
are no cable		
joins, sharp		
bends		
during		
cabling		
To ensure		
weather		
proof (UV		
proof) cable		
are used in		
outdoors		
To ensure		
that cabling		
is sturdy,		
protected		
and does		
not disturb		
the		
ambience of		
building		
To ensure		
that		
cameras are		
protected		
from light		
while		
installing in		
outdoor		
To ensure		
the		
intended		
area is		
covered		
during		
movement		
in case of It		
or pan type		
of camera		
 To assess 		
power		
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		requirement	
		of camera	
		and use	
		required	
		power	
		supply and	
		cable	
		To educate	
		customer on	
		use of	
		cameras for	
		desired	
		monitoring	
		and .	
		warranty	
		period and	
		annual	
		maintenanc	
		e	
		requirement	
		To ensure	
		zero	
		material	
		damage	
		while	
		handling the	
		equipment	
		during	
		installa on	
		process	
		To install	
		target number of	
		CCTVs as per	
		company's	
		policy	
		To know	
		company's	
		sales and	
		a er sales	
		support	
		policy	
		To know	
		company's	
		policy on	
		product's	
		warranty	
		and other	
		terms and	
		condi ons	
		10 14 10 17	
		company's	
		customer	
		support and support and	
		service	
		policy	

			•	To know importance of the individual's role in the				
			•	workflow To know company's policies on incen ves, delivery standards, and personnel managemen t				
			•	To share work load as required To achieve the targets given on installa ons				
			•	To reduce repe on of errors				
6	Setup the CCTV surveillan ce system	CCTV Setup		To procure and place the Digital Video Recorder (DVR) in an appropriate place as per customer's requirement To connect all the cameras installed to the DVR To ensure that all cameras are connected to the DVR and the wiring is appropriate To connect the monitor (TV / PC) with the video output	ELE/N4611 PC1, PC2, PC3, PC4, PC5, PC6, PC7, PC8, PC9, PC10, PC11, PC12, PC13, PC14, PC15, PC16, PC17, PC18, PC19, PC20, PC21, PC22, PC23, PC24, PC25, PC26, PC27, PC28, PC29, PC30, PC31, PC32, KB1, KB4, KB5, KB6, KB8, KB10, KB11, KB12, KB14, KB16, KB23, KB25, KB28	Facilitator- led – Discussion Demonstra on	Prac cal Lab	7 hrs

connec on	
in the DVR	
To connect	
speakers, if	
required, for	
audio	
output to	
DVR	
To connect	
the camera	
op onal	
controls (It	
/ pan /	
zoom) to	
DVR	
To use DVR	
link op on	
to connect	
with	
another DVR	
in the	
network	
To connect	
the DVR to	
router, if	
required, to	
enable	
remote	
monitoring	
To connect	
the power	
supply of	
DVR,	
monitor,	
speakers to	
set up the	
system	
To install	
the	
appropriate	
so ware for	
IP network	
or remote	
monitoring	
To enter the	
appropriate	
IP address	
to receive	
the video	
signals	
through IP	
network /	
internet	
To connect	
all	
equipment	

	I	I	I	and and their		I	I		
				and switch					
				on to start					
7	Cables	Se ng up surveillance system.		Interfacing the camera with the DVR with suitable medium depending on the wishing network / system if any. Explain and collec ng tools required to set up a surveillance system. Discuss with the other team members and about the required specifica on of a system. Help the team member as a good support worker to create and	ELE/N4610 PC9, PC10, PC11, PC12, PC13, PC21, PC22, PC23, PC24, PC25, PC26, PC27, PC30, PC31, PC32, ELE/N9909 PC1, PC2, PC3, PC4, PC5,PC11, PC12, PC14, PC15	Facilitator-led – Discussion Demonstra on	a. b. c. d. e. f.	Coaxial Fibre op c Cat 5 Crimper Cu er Connector s	6hrs
				surveillance system and remain quiet and pa ence at the me of installa on/ fault finding.					
8	Survey, planning & maintena nce	Monitoring and maintenanc e	•	Making a good site survey and iden fying the loca on of the camera to be fixed. Selec ng the suitable	ELE/N4609 PC9, PC10, PC11, PC12, PC13, PC14PC15, PC16,PC17, PC18, PC19, PC20, KB2, KB3, KB4	Demonstra on	a. b.	DVR (Di . Types). Camera (Di . Types). Adapter Cable (Di . Types).	6 hrs

									1
				camera			d.	Screw	
				depending				driver	
				on the			e.	Display	
				coverage					
				area					
				required by					
				the					
				customer					
				Help & co-					
			-						
				operate with the					
				team					
				members					
				while taking					
				measureme					
				nt of the					
				site.					
			•	Interfacing					
				&					
				connec ng					
				the camera					
				and					
				synchronizin					
				git with					
				control					
				room.					
				To make					
				understand					
				the					
				recording &					
				retrieving					
				process of					
				previously					
				recorded					
				footage to					
				the					
				controller of					
				the system.					
			•	Convince					
				the					
				customer					
				about the					
				best					
				available					
				camera for					
				be er					
				surveillance.					
9	Interac o	Customer	•	Understand	ELE/N4609	Demo	a.	Laptop	4 hrs
	n with the	service		the basic	PC1, PC2,	nstra	b.	Projector.	
	customers			requirement	PC3, PC4,	on		•	
	&			s of the	PC5, PC6,	and			
	colleagues			customer.	PC7, PC8,				
	, concept			Help them	PC15, PC16,	Facilit			
	of team			to choose	PC17, PC18,	ator-			
	work			the best	PC19, PC20,	led -			
	VVOIN				1017,1020,				
			<u> </u>	solu on.					

	 Con nuous 	SB1, SB2,	discus	
	interac on	SB3, SB5	sion	
	with the	ELE/N9909	3011	
	customer	PC1, PC2,		
	for any	PC3, PC4,		
	installa on	PC5, PC6,		
	or post	PC7, PC8,		
	installa on	PC9, PC11,		
	maintenanc	PC12, PC13,		
	е	KA2, KA3,		
	C	KB1, KB2,		
		SB1, SB2,		
		SB3, SB4		

Annexure II

Assessment Criteria CRITERIA FOR ASSESSMENT OF TRAINEES

Assessment Criteria for "CCTV Installa on Technician"					
Job Role CCTV Installa on Technician					
Qualifica on Pack ELE/Q 4605					
Sector Skill Council	Electronics Sector Skills Council of India				

Guidelines for Assessment

- 1. Criteria for assessment for each Qualifica on Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks propor onal to its importance in NOS. SSC will also lay down propor on of marks for Theory and Skills Prac cal for each PC.
- 2. The assessment for the theory part will be based on knowledge bank of ques ons created by the SSC.
- 3. Individual assessment agencies will create unique ques on papers for theory and skill prac cal part for each candidate at each examina on/training centre.
- 4. SSC will create unique evalua ons for skill prac cal for every student at each examina on/training centre based on these criteria.
- 5. To pass the Qualifica on Pack, every trainee should score a minimum of 70% in every NOS.
- 6. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualifica on Pack.
- 7. In case of unsuccessful comple on, the trainee may seek reassessment on the qualifica on pack.

				Marks /	Alloca on
Element	Performance Criteria	Total	Out	Theory	Skills
		Marks(400)	of		Prac cal
	PC1. greet the customer and listen to		3	1	2
	their requirements				
1.	PC2 understand the basic requirement		3	1	2
ELE/N4609	of the customer				
Visit site	PC3. understand the basic layout of site		3	1	2
and	where the CCTV system to be installed				
understand	from the customer				
customer	PC4. check with customer about me		3	1	2
requireme	for visit, field work and confirm				
nt	loca on				
	PC5. followe que e when interac ng		3	1	2
	with customers as per company policy				

PC6. interact with the customers to understand the purpose of CCTV		5	2	3
installa on		L	2	2
PC7. understand the system monitoring		5	2	3
requirement induding combina on of viewing, recording and replay				
PC8. understand the type of camera		5	2	3
preferred by customer such as fixed		5	_	3
camera, pan/ It, zoom op ons,				
day/night camera				
PC9. visit the site and understand the		3	1	2
layout		O		_
PC10. seek customer's approval for	100	3	1	2
visi ng the rooms in the premises		O		_
PC11. understand the area and other		3	1	2
measurement specifica ons		O		_
PC12 iden fy the loca onswhere the		4	2	2
CCTV camera to be installed which		·	_	_
could capture maximum area in the				
video coverage				
PC13. decide if any moun ng structure		4	2	2
or pole is required for camera installing				
PC14. understand the building		3	1	2
structure for cabling purpose				
PC15. interact with customer to inform		4	2	2
the observa on made from				
surveillance aspect a er the site check.				
PC16. suggest the CCTV systems that		3	1	2
could fulfil customer's and site				
requirement				
PC17. suggest the type of camera and		3	1	2
recording system to be installed				
PC18. suggest the hardware / so ware		4	2	2
requirements if it has to be connected				
with IP network or for remote				
monitoring				
PC19. suggest the hardware system		3	1	2
that suit the customer budget and				
meet the func onal requirement				_
PC20. assess any hesita on from		3	1	2
customer on selec on of system and				
provide an alterna ve solu on				
PC21. confirm the number and type of		2	1	1
camera to be installed as per the site				
requirement		2	1	1
PC22 take confirma on on moun ng		2	1	1
points of camera in the site		2	1	1
PC23. confirm the loca on of system		2	1	1
placement (recorder and monitoring)				

		_		_	
	PC24. confirm the monitor or hardware		2	1	1
	requirement (TV / PC) and whether it is				
	available		2	1	2
	PC25. confirm the type of transmission		3	1	2
	to output device: IP network or Digital Video Recorder (DVR) or remote and				
	confirm hardware requirements PC26. es mate the me for installa on		2	1	1
	process and inform the customer		2	1	1
	PC27. inform the customer about		2	1	2
	hardware details including cost and		_	'	_
	take their sign o				
	PC28. ask open and dose-ended		4	2	2
	ques ons to understand the customer		4	~	_
	requirement and expecta on about the				
	CCTV system PC28. ask open and close-				
	ended ques ons to understand the				
	customer requirement and expecta on				
	about the CCTV system				
	PC29. educate about di erent systems		4	2	2
	and equipment available to meet		'		
	customer requirements				
	PC30. achieve customer sa sfac on on		4	1	3
	engagement behaviour such as				
	listening to complaints or appropriate				
	dressing				
	PC31. educate customers about the		3	1	2
	di erent type of CCTV systems				
	available in the market and suggest an				
	ideal system for the site				
		Total	100	40	60
	DC1 progress the hards progress required for		1	10	
	PC1. procure the hardware required for		4	2	2
	CCTV system installa on PC2 ensure that all the hardware		1	2	2
			4	~	4
	matches the customer requirement,				
2	agreed features and specifica ons PC3. understand the warranty		3	1	2
ELE/N4610	associated with the hardware product		3	'	~
Install the	PC4. and related documents for the		4	2	2
CCTV	hardware equipment		4	~	
camera	PC5. check the hardware equipment		4	2	2
hardware	before taking to the installa on site		-	_	_
	PC6. replace the hardware if there is		4	2	2
	any issue or malfunc on is found while		¬	_	
	tes ng				
	PC7. check for cri cal equipment such		3	1	2
	as camera, recorder wr.t quality and			['	_
	output				
		l	1	1	I

	PC8. ensure all the tools, equipment, u li es are available in good to enable	100	4	2	2
	installing in single visit				
	PC9. lay the cables in the building or		2	1	1
	site to connect the camera and system				
	PC10. ensure adequate length of co-		2	1	1
	axial and other cables are available for				
	installa on				
	PC11. use BNC connectors for joining		2	1	1
	cables and crimp them				
	PC12 use power cable of specified		2	1	1
	thickness to connect CCTV system with				
	power supply				
	PC13. connect all the cables from		2	1	1
	mul ple cameras to the CCTV system				
	area				
	PC14. mount the CCTV camera so as to		3	1	2
	cover maximum area			-	_
	PC15. decide whether the camera		3	1	2
	requires any enclosure to protect from		Ü		_
	dust, vandalism and dima c condi ons				
	PC16. use stable moun ng structure		3	1	2
	and ensure that is not disturbed by		Ü		_
	wind or rain which would a ect the				
	video quality				
	PC17. decide on the height of camera		3	1	2
	installa on according to the end				_
	purpose (for example: if the visitor				
	entering the premise is to be				
	monitored, camera should not be				
	placed too high and their face would				
	not be captured)				
	PC18. set up the type of camera such as		3	1	2
	pan, It, zoom unit as per customer			-	_
	requirement				
	PC19. set camera controls 3 1 2 PC20.		3	1	2
	connect the power and video output				_
	cable to the camera				
	PC20. connect the power and video		3	1	2
	output cable to the camera				
	PC21. use tools such as diagonal		4	2	2
	cu ers, screwdrivers, crimp tools, knife				
	for cabling and camera moun ng				
	PC22. follow standard opera ng		4	2	2
	procedure of tools and equipment and				
	avoid any hazard				
ļ	PC23. follow the installa on manual for		4	2	2
	specific hardware product				
ľ	PC24. use recommended tools for		4	2	2
	specific equipment to avoid damage				
<u> </u>			Í.	1	

		I	1		
	PC25. follow standard safety		4	2	2
	procedures while installing				
	PC26. ensure that only quality		2	1	1
	hardware products are procured				
	complying to industry and quality				
	standards			1	1
	PC27. ensure product installa on and user manual is available which should		2	1	1
	be given to the user or customer PC28. ensure that there are no cable		2	1	1
	joins, sharp bends during cabling		_	'	'
	PC29. ensure weather proof (UV proof)		2	1	1
	cable are used in outdoors		_	'	
	PC30. ensure that cabling is sturdy,		2	0	2
	protected and does not disturb the		_	0	_
	ambience of building				
	PC31. ensure that cameras are		2	0	2
	protected from light while installing in		_		_
	outdoor				
	PC32 ensure the intended area is		2	0	2
	covered during movement in case of It				
	or pan type of camera				
	PC33. assess power requirement of		2	0	2
	camera and use required power supply				
	and cable				
	PC34. educate customer on use of		1	0	1
	cameras for desired monitoring and				
	warranty period and annual				
	maintenance requirement		1		1
	PC35. ensure zero-material damage		1	0	1
	while handling the equipment during				
	installation process		1		1
	PC36. install target number of CCTVs as		1	0	1
	per company's policy	Total	100	40	60
		Total	ΙW	40	60
	PC1. procure and place the Digital		2	1	1
	Video Recorder (DVR) in an appropriate		~	'	'
	place as per customer's requirement				
3.	PC2. connect all the cameras installed		3	1	2
5. ELE/N4611	to the DVR			'	_
Setup the	PC3. ensure that all cameras are		3	1	2
CCTV	connected to the DVR and the wiring is			'	
surveillanc	appropriate				
e system	PC4. connect the monitor (TV / PC) with		3	1	2
camera	the video output connec on in the DVR			'	1
and DVR	PC5. connect speakers, if required, for		2	1	1
with	audio output to DVR		_		
the system	PC6. connect the camera op onal	100	2	1	1
	controls (It / pan / zoom) to DVR		'		
L		<u> </u>	L	1	1

	PC7. use DVR link op on to connect	2	1	1
	with another DVR in the network	•	4	4
	PC8. connect the DVR to router, if	2	1	1
ŀ	required, to enable remote monitoring	5	2	3
	PC9. connect the power supply of DVR, monitor, speakers to set up the system	3	2	3
	PC10. install the appropriate so ware	5	2	3
	for IP network or remote monitoring	J	2	3
	PC11. enter the appropriate IP address	5	2	3
	to receive the video signals through IP		_	
	network / internet			
	PC12 connect all equipment and	5	2	3
	switch on to start the video capture			
	PC13. perform a demo of CCTV system	3	1	2
	opera on with the customer			
	PC14. ensure that all the controls in the	2	1	1
	system are properly working			
	PC15. ensure that pan, It, zoom	3	1	2
	op ons of the camera are working			
	PC16. monitor and switch to mul ple	3	1	2
	camera installed and connected in the			
	system			
	PC17. perform viewing, recording and	3	1	2
	replaying the video captured in the			
	system as per customer requirement			
	PC18. take correc ve ac on and fix the	3	1	2
	issues such as no video, lack of darity in			
	the system when found	•	4	0
	PC19. perform remote monitoring and	3	1	2
	controls associated if it is opted by			
	customer	7	3	1
	PC20. inform customer on adequate	7	3	4
	informa on about hardware device or			
	PC21. instruct customer on use of and	7	3	4
	procedures to be followed for	,	5	4
	opera ng the system or hardware			
	PC22 receive the work order from the	3	1	2
	superior	Ü	·	_
	PC23. report on the work load and	3	1	2
	comple on status			
	PC24. escalate the problems that	3	1	2
	cannot be resolved at field level with			
	reason			
	PC25. submit the feedback form on	3	1	2
	customer sa sfac on level with respect			
	to the installa on			
	PC26. accurately report work status	3	1	2
	through proper documenta on as per			
	company's standards			

	PC27. ensure that there is no problem		2	1	1
	a er installing the CCTV system and the				
	output video is per customer's				
	expecta on				
	PC28. confirm acceptance on installing		2	1	1
	any hardware or so ware in the system				
	PC29. inform customer about warranty		2	1	1
	and other terms and condions on the				
	hardware equipment				
	PC30. provide relevant documents to		2	1	1
	customers on comple on of installa on				
	PC31. achieve 100% sa sfac on with		2	1	1
	customer on installa on service				
	PC32 achieve 100% on me		2	1	1
	comple on of field installa on with		_	'	
	reference to agreed target and me or				
	reasons for not mee ng target				
	reasons for not meeting target	Total	100	40	60
		Iotal	100	1 40	
	PC1. understand and assess work		5	2	3
	requirements			_	
	PC2. understand the targets and		5	2	3
	incen ves			_	
	PC3. understand new opera ng		5	2	3
4.	procedures and constraints		J	_] 3
ELE/N9909	PC4. report problems in the field	-	5	2	3
Coordinate	PC5. resolve personnel issues		5	2	3
with	PC6. receive feedback on work		5	2	3
colleagues			5	2	3
wiicagaes	standards and customer sa sfac on		_	2	2
	PC7. communicate any poten al		5	2	3
	hazards at a par cular loca on	100	_	2	2
	PC8. meet given targets 5	100	5	2	3
	PC9. deliver work of expected quality		5	2	3
	despite constraints		_		
	PC10. receive posi ve feedback on		5	2	3
	behaviour and a tude shown during				
	interac on				
	PC11. interact with colleagues from		10	4	6
	di erent func ons and understand the				
	nature of their work				
	PC12 receive spares from tool room or		10	4	6
	stores, deposit faulty modules and				
	tools to stores				
	PC13. pass on customer complaints to		10	4	6
	colleagues in a respec ve geographical				
	area				
	PC14. assist colleagues with resolving		10	4	6
	field problems resolve conflicts and				
	achieve smooth workflow				
	PC15. follow the company policy during	1	10	4	6
	cross func onal interac on			<u></u>	
	•		•	•	•

Facilitator Guide

	Total	100	40	60

Do

- Explain each Guideline for Assessment in detail
- Explain the score that each trainee needs to obtain
- Recapitulate each NOS one-by-one and take par cipants through the alloca on of marks for Theory and Skills Prac cal.
- Explain the Alloca on of Marks. Explain that they will be assessed on Theory and Skills Prac cal.



– N	lotes =



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